

American Made Products for Work Holding and Fastener Applications



# Northwestern Tools, Inc.

Over 70 Years of Service

## Product Guide

### KNOBS, LEVERS AND HANDLES



3130 Valleywood Drive | Dayton, Ohio 45429 | Phone: 937.298.9994 | Fax: 937.298.3715

[NorthwesternTools.com](http://NorthwesternTools.com)

800.236.3956



# Northwestern Tools, Inc.

## SERVICE • QUALITY

You can depend on Northwestern to give you prompt service and a quality product at a reasonable price. With one of the largest inventories in the industry and a nationwide network of industrial distributors, our products are there when you need them.

This catalog features Northwestern's complete line of knobs, handles, and levers. These products are made by skilled craftsmen from the finest materials available and their prices are kept reasonable through mass production. In addition to the standard tools shown, many special sizes can be furnished, often at only slightly higher costs.

**Toll - Free Number  
800-236-3956**

# Table of Contents



Zinc Die-Cast Adjustable Levers with Push Button with Steel Components  
[Page 2](#)



Zinc Die-Cast Adjustable Levers with Push Button with Steel Components  
[Page 3-4](#)



Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components  
[Page 5](#)



Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components  
[Page 6-7](#)



Nylon Plastic Adjustable Levers with Push Button with Steel Components  
[Page 8](#)



Nylon Plastic Adjustable Levers with Push Button with Steel Components  
[Page 9-10](#)



Nylon Plastic Adjustable Levers with Push Button with Steel Components  
[Page 11](#)



Nylon Plastic Adjustable Levers with Push Button with Stainless Steel Components  
[Page 12-13](#)



Straight Zinc Die-Cast Adjustable Levers with Push Button with Steel Components  
[Page 14](#)



Straight Zinc Die-Cast Adjustable Levers with Push Button with Steel Components  
[Page 15-16](#)



Straight Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components  
[Page 17](#)



Straight Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components  
[Page 18-19](#)



Heavy Duty Adjustable Levers - Steel  
[Page 20](#)



Heavy Duty Adjustable Levers - Steel  
[Page 21](#)



Heavy Duty Adjustable Levers - Stainless Steel  
[Page 22](#)



Heavy Duty Adjustable Levers - Stainless Steel  
[Page 23](#)



Heavy Duty Adjustable Levers - Steel  
[Page 24](#)



Flat Adjustable Levers - Steel  
[Page 25](#)



Flat Adjustable Levers - Stainless Steel  
[Page 26](#)



Flat Adjustable Levers - Stainless Steel  
[Page 27](#)



Fixed Clamping Levers with Steel Components  
[Page 28](#)



Fixed Clamping Levers with Steel Components  
[Page 29](#)



Cabinet "U" Handles - Load Rated Aluminum  
[Page 30](#)



Cabinet "U" Handles - Load Rated Stainless Steel  
[Page 31](#)



Tubular Grips - Offset Aluminum  
[Page 32-33](#)



Tubular Grips - Straight Aluminum  
[Page 34-35](#)



Cabinet "U" Handles - Weldable - Load Rated - Stainless Steel  
[Page 36](#)



Cabinet "U" Handles - Nylon Plastic - Load Rated  
[Page 37](#)



Cabinet "U" Handles - Load Rated - Aluminum  
[Page 38](#)



Cabinet "U" Handles - Load Rated - Economical Type  
[Page 39](#)



Cabinet "U" Handles - Nylon Plastic - Load Rated  
[Page 40](#)



Cabinet / Door Handle - Aluminum  
[Page 41](#)



Hinges - Thru Hole - Nylon Plastic  
[Page 42](#)



Hinges - Countersunk Thru Hole - Zinc Die Cast  
[Page 43](#)



Ledge Handles - Aluminum  
[Page 44](#)



Cylindrical Revolving Handles - Phenolic and Nylon Plastic  
[Page 45](#)



Revolving Ball Knobs - Phenolic Plastic  
[Page 46](#)



Stainless Steel Handwheels  
[Page 47-48](#)



Aluminum Handwheels  
[Page 49-50](#)



Cast Iron Handwheels  
[Page 51](#)



Stainless Steel Inserts  
[Page 52-55](#)



Stainless Steel Crank Handle  
[Page 56](#)



Steel Inserts  
[Page 57-58](#)



Quick Acting Knobs and Inserts and Plastic Knobs  
[Page 59](#)



Hand Knobs  
[Page 60-61](#)



Adjustable Handles  
[Page 62-67](#)



Crank Handles  
[Page 68](#)

# Zinc Die-Cast Adjustable Levers with Push Button with Steel Components



**Handle** - Zinc die-cast

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon Plastic

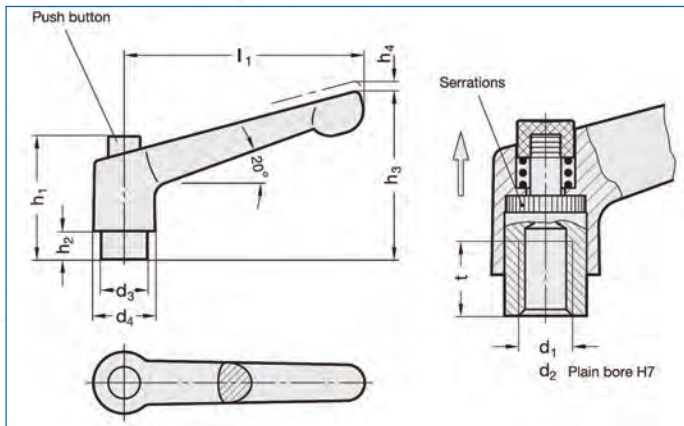
Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Tapped or Blind Bore Type

Inch Table

| Part No.                       | l1           | d1 Tapped | d2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        | A/F          |
|--------------------------------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|--------------|
| Black Lever with Orange Button |              |           |               |               |               |                |              |                |              |              |              |
| 83000                          | 1.18<br>(30) | 10-32     |               | .39<br>(9.9)  | .49<br>(12.5) | .96<br>(24.4)  | .16<br>(4.1) | 1.20<br>(30.5) | .14<br>(3.6) | .31<br>(7.9) | .12<br>(3)   |
| 83001                          |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83002                          |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83003                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83004                          | 1.77<br>(45) | 10-32     |               | .39<br>(9.9)  | .51<br>(13)   | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .31<br>(7.9) | .12<br>(3)   |
| 83005                          |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83006                          |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83007                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83008                          | 2.48<br>(63) | 1/4-20    |               | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   | .16<br>(4.1) | .39<br>(9.9) | .16<br>(4.1) |
| 83009                          |              | 5/16-18   |               |               |               |                |              |                |              |              |              |
| 83010                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83011                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83012                          | 3.07<br>(78) | 5/16-18   |               | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) | .16<br>(4.1) | .55<br>(14)  | .16<br>(4.1) |
| 83013                          |              | 3/8-16    |               |               |               |                |              |                |              |              |              |
| 83014                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83015                          |              |           | .375          |               |               |                |              |                |              |              |              |

Dimensions in Inches (Millimeters)

**Handle** - Zinc die-cast

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon Plastic

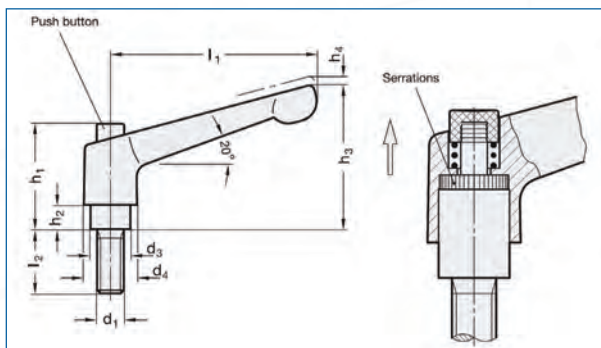
Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

| Inch Table                     |           |           |                |           |            |            |           |             |           |         |
|--------------------------------|-----------|-----------|----------------|-----------|------------|------------|-----------|-------------|-----------|---------|
| Part No.                       | l1        | d1 Thread | l2 Stud Length | d3        | d4         | h1         | h2        | h3          | h4        | A/F     |
| Black Lever with Orange Button |           |           |                |           |            |            |           |             |           |         |
| 83016                          | 1.18 (30) | 10-32     | .39            | .39 (9.9) | .49 (12.5) |            |           | 1.20 (30.5) |           |         |
| 83017                          |           |           | .63            |           |            |            |           |             |           |         |
| 83018                          |           | 10-24     | .63            |           |            |            |           |             |           |         |
| 83019                          |           | 1/4-20    | .39            |           |            |            |           |             |           |         |
| 83020                          |           |           | .47            |           |            |            |           |             |           |         |
| 83021                          |           |           | .63            |           |            |            |           |             |           |         |
| 83022                          |           |           | .78            |           |            |            |           |             |           |         |
| 83023                          | 1.77 (45) | 10-32     | .63            |           | .51 (13)   | .96 (24.4) | .16 (4.1) | 1.38 (35.1) | .14 (3.6) | .12 (3) |
| 83024                          |           |           | .78            |           |            |            |           |             |           |         |
| 83025                          |           |           | .98            |           |            |            |           |             |           |         |
| 83026                          |           |           | 1.26           |           |            |            |           |             |           |         |
| 83027                          |           | 10-24     | .63            |           |            |            |           |             |           |         |
| 83028                          |           | 1/4-20    | .78            |           |            |            |           |             |           |         |
| 83029                          |           |           | .98            |           |            |            |           |             |           |         |
| 83030                          |           |           | 1.26           |           |            |            |           |             |           |         |
| 83031                          |           |           | 1.57           |           |            |            |           |             |           |         |
| 83032                          |           |           | 1.77           |           |            |            |           |             |           |         |

Dimensions in Inches (Millimeters)

Continued on the Next Page

# Zinc Die-Cast Adjustable Levers with Push Button with Steel Components



**Handle** - Zinc die-cast

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon Plastic

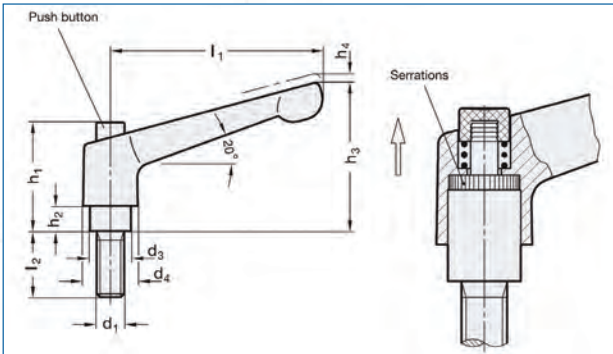
Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Threaded Stud Type - Con't

| Inch Table                     |              |           |                |               |               |                |              |                |    |     |
|--------------------------------|--------------|-----------|----------------|---------------|---------------|----------------|--------------|----------------|----|-----|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3            | d4            | h1             | h2           | h3             | h4 | A/F |
| Black Lever with Orange Button |              |           |                |               |               |                |              |                |    |     |
| 83033                          | 2.48<br>(63) | 1/4-20    | .98            | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   |    |     |
| 83034                          |              |           | .78            |               |               |                |              |                |    |     |
| 83035                          |              | 5/16-18   | 1.57           |               |               |                |              |                |    |     |
| 83036                          |              |           | 1.97           |               |               |                |              |                |    |     |
| 83037                          |              | 2.48      |                |               |               |                |              |                |    |     |
| 83038                          |              | 3/8-16    |                |               |               |                |              |                |    |     |
| 83039                          | 1.26         |           |                |               |               |                |              |                |    |     |
| 83040                          | 1.57         |           |                |               |               |                |              |                |    |     |
| 83041                          | 2.48         |           |                |               |               |                |              |                |    |     |
| 83042                          | 3.07<br>(78) | 3/8-16    | 1.57           | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) |    |     |
| 83043                          |              |           | 1.97           |               |               |                |              |                |    |     |
| 83044                          |              | 1/2-13    | 1.26           |               |               |                |              |                |    |     |
| 83045                          |              |           | 1.57           |               |               |                |              |                |    |     |

Dimensions in Inches (Millimeters)

# Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components

**Handle** - Zinc die-cast

**Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon Plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

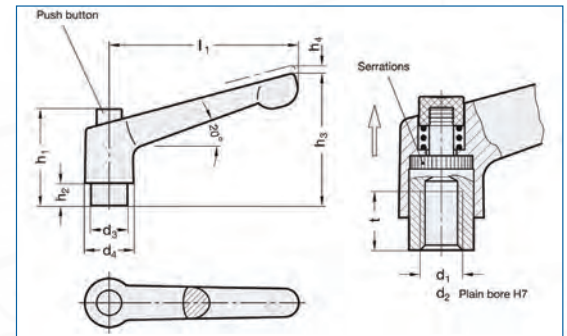
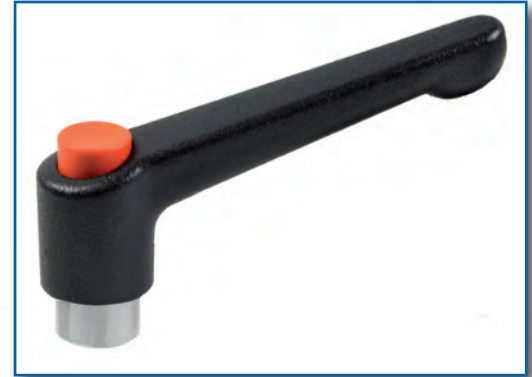
Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Tapped Type

| Inch Table                     |              |           |               |               |               |                |              |                |              |              |              |
|--------------------------------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|--------------|
| Part No.                       | l1           | d1 Tapped | d2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        | A/F          |
| Black Lever with Orange Button |              |           |               |               |               |                |              |                |              |              |              |
| 83046                          | 1.18<br>(30) | 10-32     |               | .39<br>(9.9)  | .49<br>(12.5) | .96<br>(24.4)  | .16<br>(4.1) | 1.20<br>(30.5) | .14<br>(3.6) | .31<br>(7.9) | .12<br>(3)   |
| 83047                          |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83048                          |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83049                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83050                          | 1.77<br>(45) | 10-32     |               | .39<br>(9.9)  | .51<br>(13)   | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .31<br>(7.9) | .12<br>(3)   |
| 83051                          |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83052                          |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83053                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83054                          | 2.48<br>(63) | 1/4-20    |               | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   | .16<br>(4.1) | .39<br>(9.9) | .16<br>(4.1) |
| 83055                          |              | 5/16-18   |               |               |               |                |              |                |              |              |              |
| 83056                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83057                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83058                          | 3.07<br>(78) | 5/16-18   |               | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) | .16<br>(4.1) | .55<br>(14)  | .16<br>(4.1) |
| 83059                          |              | 3/8-16    |               |               |               |                |              |                |              |              |              |
| 83060                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83061                          |              |           | .375          |               |               |                |              |                |              |              |              |

Dimensions in Inches (Millimeters)

# Zinc Die-Cast Adjustable Levers with Push Button with Stainless Steel Components



**Handle** - Zinc die-cast

**Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon Plastic

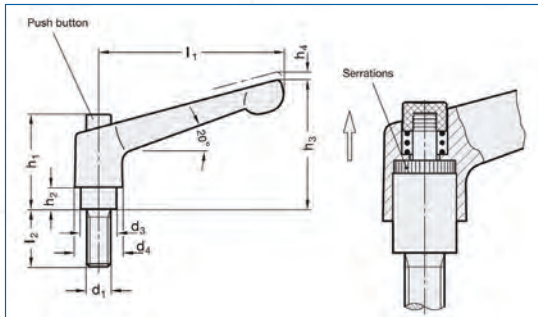
**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.



**RoHS Compliant**

Metric sizes available upon request.

## Threaded Stud Type

| Inch Table                     |              |           |                |              |               |    |    |                |    |     |     |  |  |  |
|--------------------------------|--------------|-----------|----------------|--------------|---------------|----|----|----------------|----|-----|-----|--|--|--|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3           | d4            | h1 | h2 | h3             | h4 | A/F |     |  |  |  |
| Black Lever with Orange Button |              |           |                |              |               |    |    |                |    |     |     |  |  |  |
| 83062                          | 1.18<br>(30) | 10-32     | .39            | .39<br>(9.9) | .49<br>(12.5) |    |    | 1.20<br>(30.5) |    |     |     |  |  |  |
| 83063                          |              |           | .63            |              |               |    |    |                |    |     |     |  |  |  |
| 83064                          |              |           | 1/4-20         |              |               |    |    |                |    |     | .63 |  |  |  |
| 83065                          |              | .47       |                |              |               |    |    |                |    |     |     |  |  |  |
| 83066                          |              | .63       |                |              |               |    |    |                |    |     |     |  |  |  |
| 83067                          |              | .78       |                |              |               |    |    |                |    |     |     |  |  |  |
| 83068                          | 1.77<br>(45) | 10-32     | .63            |              |               |    |    |                |    |     |     |  |  |  |
| 83069                          |              |           | .78            |              |               |    |    |                |    |     |     |  |  |  |
| 83070                          |              |           | .98            |              |               |    |    |                |    |     |     |  |  |  |
| 83071                          |              | 1.26      |                |              |               |    |    |                |    |     |     |  |  |  |
| 83072                          |              | 1/4-20    | .63            |              |               |    |    |                |    |     |     |  |  |  |
| 83073                          |              |           | .78            |              |               |    |    |                |    |     |     |  |  |  |
| 83074                          |              |           | .98            |              |               |    |    |                |    |     |     |  |  |  |
| 83075                          | 1.26         |           |                |              |               |    |    |                |    |     |     |  |  |  |
| 83076                          | 1.57         |           |                |              |               |    |    |                |    |     |     |  |  |  |
| 83077                          | 1.77         |           |                |              |               |    |    |                |    |     |     |  |  |  |

Dimensions in Inches (Millimeters)

**Continued on the Next Page**



**Handle** - Zinc die-cast

**Insert and Spring** - Stainless steel, European Standard No. 1.4305  
(American Standard Series 303)

**Push Button** - Nylon Plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305  
(American standard 303 series)

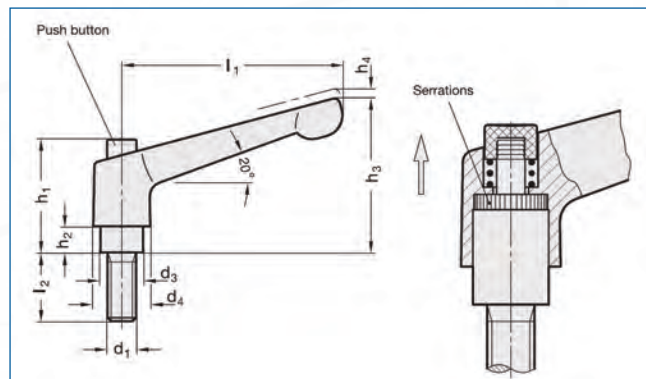
Adjustable hand levers with push button have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Shiny black finish levers and other special colored levers available upon request. Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request. Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type - Con't

| Inch Table                     |              |           |                |               |               |                |              |                |              |              |
|--------------------------------|--------------|-----------|----------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3            | d4            | h1             | h2           | h3             | h4           | A/F          |
| Black Lever with Orange Button |              |           |                |               |               |                |              |                |              |              |
| 83078                          | 2.48<br>(63) | 5/16-18   | .78            | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   |              |              |
| 83079                          |              |           | 1.57           |               |               |                |              |                |              |              |
| 83080                          |              |           | 1.97           |               |               |                |              |                |              |              |
| 83081                          |              |           | 2.48           |               |               |                |              |                |              |              |
| 83082                          | 3/8-16       |           | .78            |               |               |                |              |                | .16<br>(4.1) | .16<br>(4.1) |
| 83083                          |              |           | 1.26           |               |               |                |              |                |              |              |
| 83084                          |              |           | 1.57           |               |               |                |              |                |              |              |
| 83085                          |              |           | 1.57           |               |               |                |              |                |              |              |
| 83086                          | 3.07<br>(78) | 3/8-16    | 1.97           | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) |              |              |
| 83087                          |              |           | 1.26           |               |               |                |              |                |              |              |
| 83088                          |              |           | 1.57           |               |               |                |              |                |              |              |

Dimensions in Inches (Millimeters)

# Nylon Plastic Adjustable Levers with Push Button with Steel Components



**Handle** - Glass fiber reinforced thermoplastic with molded-in metal inlay

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon Plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

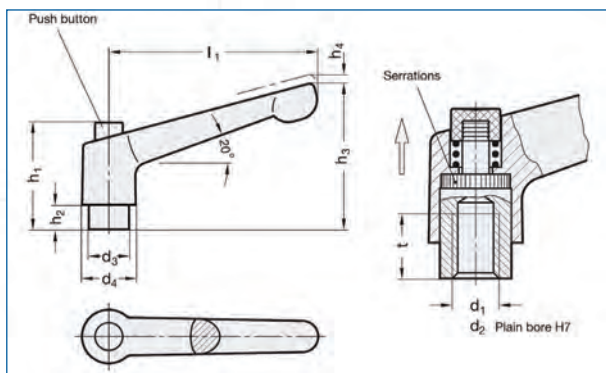
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special threads and stud lengths are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Tapped or Blind Bore Type

Inch Table

| Part No. | l1           | d1 Tapped | d2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        | A/F          |
|----------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|--------------|
| 83089    | 1.77<br>(45) | 10-32     |               | .39<br>(9.9)  | .57<br>(14.4) | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .35<br>(9)   | .12<br>(3)   |
| 83090    |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83091    |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83092    |              |           | .250          |               |               |                |              |                |              |              |              |
| 83093    | 2.48<br>(63) | 1/4-20    |               | .53<br>(13.5) | .76<br>(19.2) | 1.22<br>(31)   | .26<br>(6.5) | 1.77<br>(45)   | .16<br>(4.1) | .39<br>(9.9) | .16<br>(4.1) |
| 83094    |              | 5/16-18   |               |               |               |                |              |                |              |              |              |
| 83095    |              |           | .250          |               |               |                |              |                |              |              |              |
| 83096    |              |           | .313          |               |               |                |              |                |              |              |              |
| 83097    | 3.07<br>(78) | 5/16-18   |               | .63<br>(16)   | .86<br>(21.8) | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) | .16<br>(4.1) | .55<br>(14)  | .16<br>(4.1) |
| 83098    |              | 3/8-16    |               |               |               |                |              |                |              |              |              |
| 83099    |              |           | .313          |               |               |                |              |                |              |              |              |
| 83100    |              |           | .375          |               |               |                |              |                |              |              |              |

Dimensions in Inches (Millimeters)

## Handle

Glass fiber reinforced nylon thermoplastic with molded-in metal inlay

## Insert and Spring

Steel, black oxide finish

## Push Button

Nylon plastic

## Screw for Push Button

Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

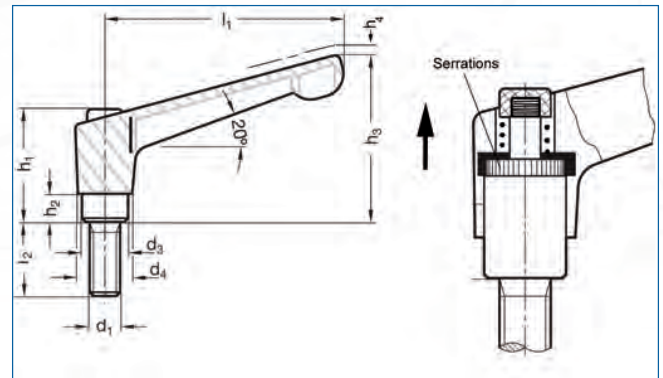
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special threads and stud lengths are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

| Inch Table                     |              |           |                |              |               |               |              |                |              |
|--------------------------------|--------------|-----------|----------------|--------------|---------------|---------------|--------------|----------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3           | d4            | h1            | h2           | h3             | h4           |
| Black Lever with Orange Button |              |           |                |              |               |               |              |                |              |
| 83101                          | 1.77<br>(45) | 10-32     | .63            | .39<br>(9.9) | .57<br>(14.4) | .96<br>(24.4) | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) |
| 83102                          |              |           | .78            |              |               |               |              |                |              |
| 83103                          |              |           | .98            |              |               |               |              |                |              |
| 83104                          |              |           | 1.26           |              |               |               |              |                |              |
| 83105                          |              | 1/4-20    | .63            |              |               |               |              |                | .16<br>(4.1) |
| 83106                          |              |           | .78            |              |               |               |              |                |              |
| 83107                          |              |           | .98            |              |               |               |              |                |              |
| 83108                          |              |           | 1.26           |              |               |               |              |                |              |
| 83109                          |              |           | 1.57           |              |               |               |              |                |              |
| 83110                          |              |           | 1.77           |              |               |               |              |                |              |

Dimensions in Inches (Millimeters)

Continued on the Next Page

# Nylon Plastic Adjustable Levers with Push Button with Steel Components



**Handle** - Glass fiber reinforced nylon thermoplastic with molded-in metal inlay

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

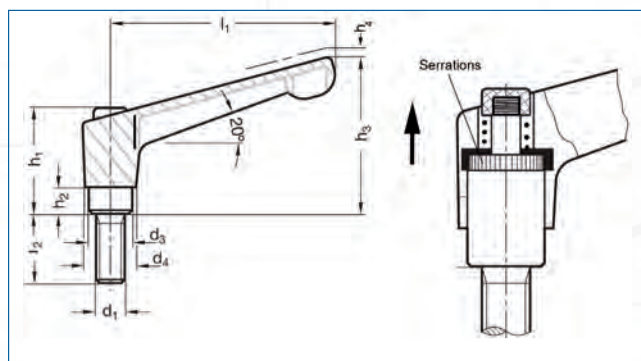
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special threads and stud lengths are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Threaded Stud Type - Con't

| Inch Table                     |              |              |                |               |               |              |              |              |              |      |
|--------------------------------|--------------|--------------|----------------|---------------|---------------|--------------|--------------|--------------|--------------|------|
| Part No.                       | l1           | d1 Thread    | l2 Stud Length | d3            | d4            | h1           | h2           | h3           | h4           |      |
| Black Lever with Orange Button |              |              |                |               |               |              |              |              |              |      |
| 83111                          | 2.48<br>(63) | 1/4-20       | .98            | .53<br>(13.5) | .76<br>(19.2) | 1.22<br>(31) | .26<br>(6.6) | 1.77<br>(45) | .16<br>(4.1) |      |
| 83112                          |              |              | .78            |               |               |              |              |              |              |      |
| 83113                          |              |              | 5/16-18        |               |               |              |              |              |              | 1.57 |
| 83114                          |              |              |                |               |               |              |              |              |              | 1.97 |
| 83115                          |              | 3/8-16       | 2.48           |               |               |              |              |              |              |      |
| 83116                          |              |              | .78            |               |               |              |              |              |              |      |
| 83117                          |              |              | 1.26           |               |               |              |              |              |              |      |
| 83118                          |              |              | 1.57           |               |               |              |              |              |              |      |
| 83119                          |              |              | 2.48           |               |               |              |              |              |              |      |
| 83120                          |              | 3.07<br>(78) | 3/8-16         |               |               |              |              |              |              | 1.57 |
| 83121                          | 1.97         |              |                |               |               |              |              |              |              |      |
| 83122                          | 1/2-13       |              | 1.26           |               |               |              |              |              |              |      |
| 83123                          |              |              | 1.57           |               |               |              |              |              |              |      |

Dimensions in Inches (Millimeters)

**Handle** - Glass fiber reinforced nylon thermoplastic with molded-in metal inlay

**Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

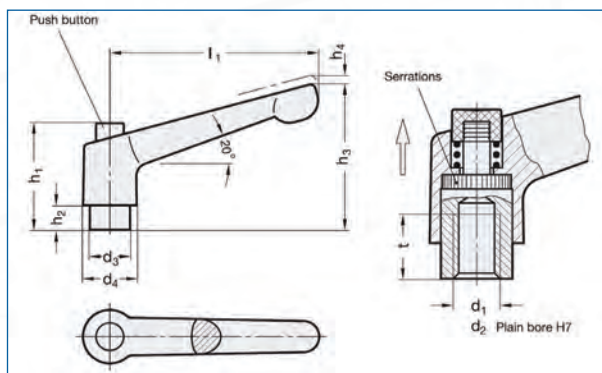
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special bores and threads are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Tapped or Blind Bore Type

| Inch Table                     |              |           |               |               |               |                |              |                |              |              |              |
|--------------------------------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|--------------|
| Part No.                       | l1           | d1 Tapped | l2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        | A/F          |
| Black Lever with Orange Button |              |           |               |               |               |                |              |                |              |              |              |
| 83124                          | 1.77<br>(45) | 10-32     |               | .39<br>(9.9)  | .57<br>(14.4) | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .35<br>(9)   | .12<br>(3)   |
| 83125                          |              | 10-24     |               |               |               |                |              |                |              |              |              |
| 83126                          |              | 1/4-20    |               |               |               |                |              |                |              |              |              |
| 83127                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83128                          | 2.48<br>(63) | 1/4-20    |               | .53<br>(13.5) | .76<br>(19.2) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   | .16<br>(4.1) | .39<br>(9.9) | .16<br>(4.1) |
| 83129                          |              | 5/16-18   |               |               |               |                |              |                |              |              |              |
| 83130                          |              |           | .250          |               |               |                |              |                |              |              |              |
| 83131                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83132                          | 3.07<br>(78) | 5/16-18   |               | .63<br>(16)   | .86<br>(21.8) | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) | .16<br>(4.1) | .55<br>(14)  | .16<br>(4.1) |
| 83133                          |              | 3/8-16    |               |               |               |                |              |                |              |              |              |
| 83134                          |              |           | .313          |               |               |                |              |                |              |              |              |
| 83135                          |              |           | .375          |               |               |                |              |                |              |              |              |

Dimensions in Inches (Millimeters)

# Nylon Plastic Adjustable Levers with Push Button with Stainless Steel Components



**Handle** - Glass fiber reinforced nylon thermoplastic with molded-in metal inlay

**Threaded Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

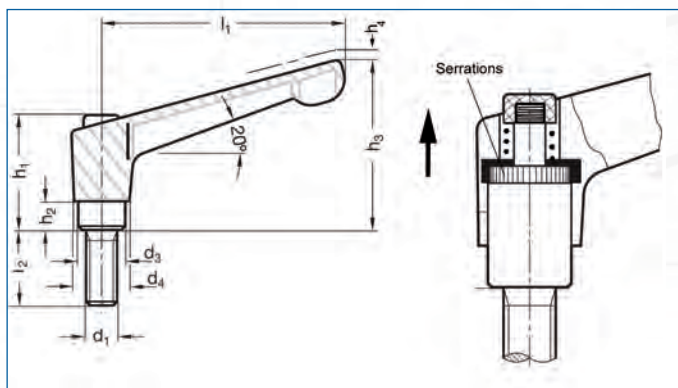
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special threads and stud lengths are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

| Inch Table                     |              |           |                |              |               |               |              |                |              |
|--------------------------------|--------------|-----------|----------------|--------------|---------------|---------------|--------------|----------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3           | d4            | h1            | h2           | h3             | h4           |
| Black Lever with Orange Button |              |           |                |              |               |               |              |                |              |
| 83136                          | 1.77<br>(45) | 10-32     | .63            | .39<br>(9.9) | .57<br>(14.4) | .96<br>(24.4) | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) |
| 83137                          |              |           | .78            |              |               |               |              |                |              |
| 83138                          |              |           | .98            |              |               |               |              |                |              |
| 83139                          |              |           | 1.26           |              |               |               |              |                |              |
| 83140                          |              | 10-24     | .63            |              |               |               |              |                | .16<br>(4.1) |
| 83141                          |              | 1/4-20    | .78            |              |               |               |              |                |              |
| 83142                          |              |           | .98            |              |               |               |              |                |              |
| 83143                          |              |           | 1.26           |              |               |               |              |                |              |
| 83144                          |              |           | 1.57           |              |               |               |              |                |              |
| 83145                          |              |           | 1.77           |              |               |               |              |                |              |

Dimensions in Inches (Millimeters)

Continued on the Next Page

**Handle** - Glass fiber reinforced nylon thermoplastic with molded-in metal inlay

**Threaded Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Patented and made in the USA, adjustable hand levers with push button are the result of modern industrial design: Glass fiber reinforced thermoplastic with molded in metal insert.

All such levers have proven to be ideal wherever parts have to be clamped in a confined space or in a particular lever position. The insert is connected to the lever via serrations which can easily be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

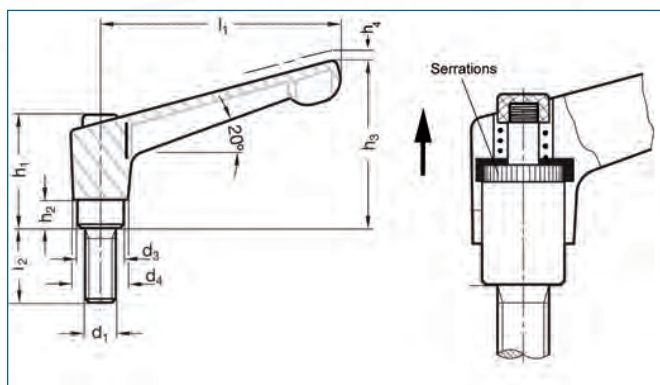
Maximum heat resistance of nylon plastic: 150°C (230°F).

Special threads and stud lengths are available upon request.

For certain minimum quantities, special colors also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Threaded Stud Type - Con't

| Inch Table                     |              |           |                |               |               |                |              |                |              |
|--------------------------------|--------------|-----------|----------------|---------------|---------------|----------------|--------------|----------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3            | d4            | h1             | h2           | h3             | h4           |
| Black Lever with Orange Button |              |           |                |               |               |                |              |                |              |
| 83146                          | 2.48<br>(63) | 5/16-18   | .78            | .53<br>(13.5) | .76<br>(19.2) | 1.22<br>(31)   | .26<br>(6.6) | 1.77<br>(45)   | .16<br>(4.1) |
| 83147                          |              |           | 1.57           |               |               |                |              |                |              |
| 83148                          |              |           | 1.97           |               |               |                |              |                |              |
| 83149                          |              | 2.48      |                |               |               |                |              |                |              |
| 83150                          |              | .78       |                |               |               |                |              |                |              |
| 83151                          |              | 3/8-16    | 1.26           |               |               |                |              |                |              |
| 83152                          | 1.57         |           |                |               |               |                |              |                |              |
| 83153                          | 3.07<br>(78) | 3/8-16    | 1.57           | .63<br>(16)   | .86<br>(21.8) | 1.42<br>(36.1) | .31<br>(7.9) | 2.17<br>(55.1) |              |
| 83154                          |              |           | 1.97           |               |               |                |              |                |              |
| 83155                          |              | 1/2-13    | 1.26           |               |               |                |              |                |              |
| 83156                          |              | 1/2-13    | 1.57           |               |               |                |              |                |              |

Dimensions in Inches (Millimeters)

# Straight Zinc Die-Cast Adjustable Levers with Push Button with Steel Components



**Handle** - Zinc die-cast

**Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon Plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

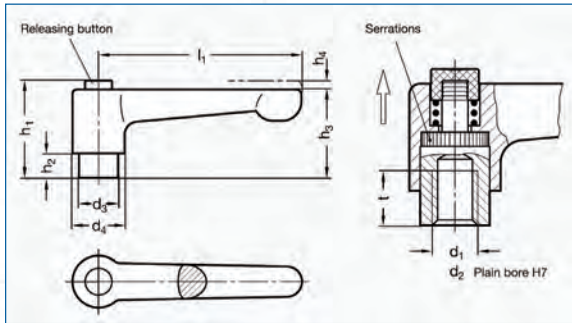
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Tapped or Blind Bore Type

| Inch Table               |              |           |               |               |               |                |              |                |              |              |
|--------------------------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|
| Part No.                 | l1           | d1 Tapped | d2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        |
| Black with Orange Button |              |           |               |               |               |                |              |                |              |              |
| 83157                    | 1.18<br>(30) | 10-32     |               | .39<br>(9.9)  | .51<br>(13)   | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .35<br>(9)   |
| 83158                    |              | 10-24     |               |               |               |                |              |                |              |              |
| 83159                    |              | 1/4-20    |               |               |               |                |              |                |              |              |
| 83160                    |              |           | .250          |               |               |                |              |                |              |              |
| 83161                    | 1.77<br>(45) | 10-32     |               | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.12<br>(28.5) | .16<br>(4.1) | .39<br>(9.9) |
| 83162                    |              | 10-24     |               |               |               |                |              |                |              |              |
| 83163                    |              | 1/4-20    |               |               |               |                |              |                |              |              |
| 83164                    |              |           | .250          |               |               |                |              |                |              |              |
| 83165                    | 2.48<br>(63) | 1/4-20    |               | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 1.34<br>(34)   | .16<br>(4.1) | .55<br>(14)  |
| 83166                    |              | 5/16-18   |               |               |               |                |              |                |              |              |
| 83167                    |              |           | .250          |               |               |                |              |                |              |              |
| 83168                    |              |           | .313          |               |               |                |              |                |              |              |
| 83169                    | 3.07<br>(78) | 5/16-18   |               | .313          | .373          |                |              |                |              |              |
| 83170                    |              | 3/8-16    |               |               |               |                |              |                |              |              |
| 83171                    |              |           | .313          |               |               |                |              |                |              |              |
| 83172                    |              |           | .373          |               |               |                |              |                |              |              |

Dimensions in Inches (Millimeters)



# Straight Zinc Die-Cast Adjustable Levers with Push Button with Steel Components

**Handle** - Zinc die-cast

**Threaded Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

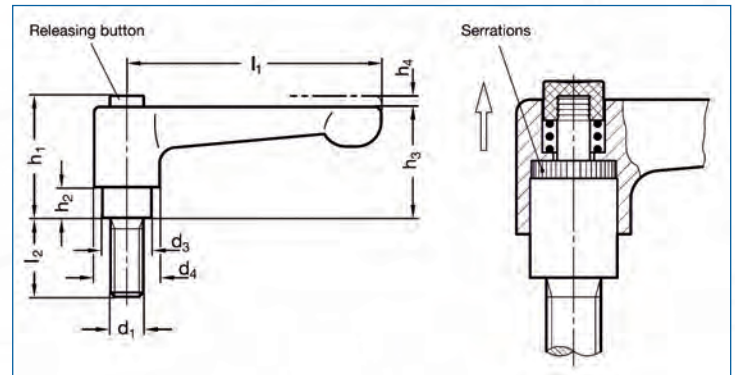
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

| Inch Table                     |              |           |                |              |               |               |              |             |              |
|--------------------------------|--------------|-----------|----------------|--------------|---------------|---------------|--------------|-------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3           | d4            | h1            | h2           | h3          | h4           |
| Black Lever with Orange Button |              |           |                |              |               |               |              |             |              |
| 83173                          | 1.18<br>(30) | 10-32     | .39            | .39<br>(9.9) | .49<br>(12.5) | .96<br>(24.4) | .16<br>(4.1) | .86<br>(22) | .14<br>(3.6) |
| 83174                          |              |           | .63            |              |               |               |              |             |              |
| 83175                          |              | 10-24     | .63            |              |               |               |              |             |              |
| 83176                          |              | 1/4-20    | .39            |              |               |               |              |             |              |
| 83177                          |              |           | .47            |              |               |               |              |             |              |
| 83178                          |              |           | .63            |              |               |               |              |             |              |
| 83179                          |              |           | .78            |              |               |               |              |             |              |
| 83180                          | 1.77<br>(45) | 10-32     | .63            | .51<br>(13)  |               |               |              |             |              |
| 83181                          |              |           | .78            |              |               |               |              |             |              |
| 83182                          |              |           | .98            |              |               |               |              |             |              |
| 83183                          |              |           | 1.26           |              |               |               |              |             |              |

Dimensions in Inches (Millimeters)

Continued on the Next Page

# Straight Zinc Die-Cast Adjustable Levers with Push Button - with Steel Components



**Handle** - Zinc die-cast

**Threaded Insert and Spring** - Steel, black oxide finish

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

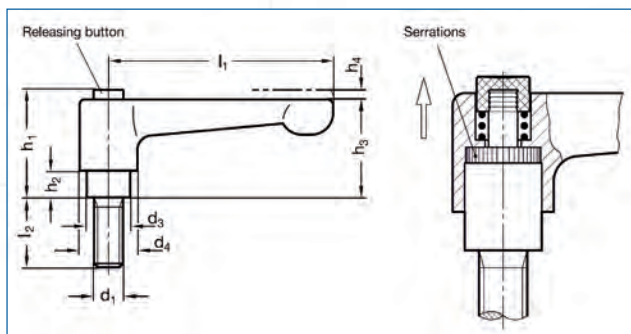
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Threaded Stud Type - Con't

| Inch Table                     |           |           |                |            |            |             |           |             |           |
|--------------------------------|-----------|-----------|----------------|------------|------------|-------------|-----------|-------------|-----------|
| Part No.                       | l1        | d1 Thread | l2 Stud Length | d3         | d4         | h1          | h2        | h3          | h4        |
| Black Lever with Orange Button |           |           |                |            |            |             |           |             |           |
| 83184                          | 1.77 (45) | 10-24     | .63            | .39 (9.9)  | .51 (13)   | .96 (24.4)  | .16 (4.1) | .86 (22)    | .14 (3.6) |
| 83185                          |           |           | .78            |            |            |             |           |             |           |
| 83186                          |           |           | .98            |            |            |             |           |             |           |
| 83187                          |           |           | 1.26           |            |            |             |           |             |           |
| 83188                          |           |           | 1.57           |            |            |             |           |             |           |
| 83189                          | 2.48 (63) | 5/16-18   | .78            | .53 (13.5) | .69 (17.5) | 1.22 (31)   | .26 (6.6) | 1.12 (28.5) | .16 (4.1) |
| 83190                          |           |           | 1.57           |            |            |             |           |             |           |
| 83191                          |           |           | 1.97           |            |            |             |           |             |           |
| 83192                          |           |           | 2.48           |            |            |             |           |             |           |
| 83193                          |           |           | .78            |            |            |             |           |             |           |
| 83194                          |           |           | 1.26           |            |            |             |           |             |           |
| 83195                          |           |           | 1.57           |            |            |             |           |             |           |
| 83196                          |           |           | 2.48           |            |            |             |           |             |           |
| 83197                          | 3.07 (78) | 3/8-16    | 1.57           | .63 (16)   | .83 (21)   | 1.42 (36.1) | .31 (7.9) | 1.34 (34)   |           |
| 83198                          |           |           | 1.97           |            |            |             |           |             |           |

Dimensions in Inches (Millimeters)

# Straight Zinc Die-Cast Adjustable Levers with Push Button - with Stainless Steel Components

**Handle** - Zinc die-cast

**Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

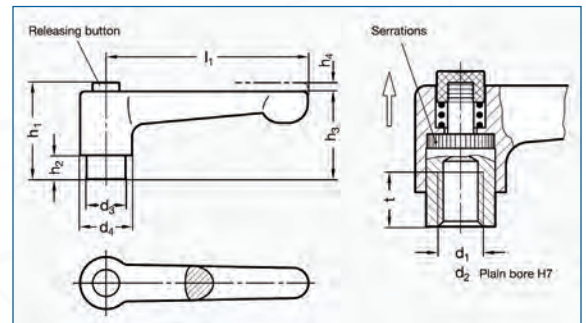
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



RoHS Compliant

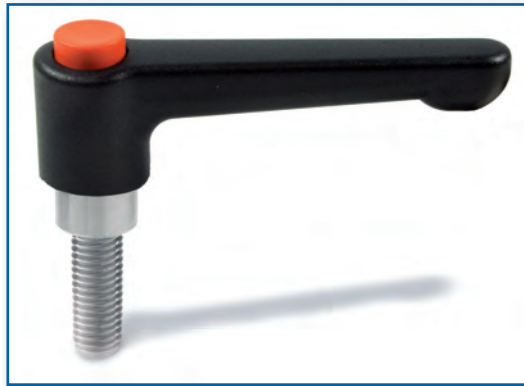
## Tapped Type

Inch Table

| Part No. | l1           | d1 Tapped | d2 Blind Bore | d3            | d4            | h1             | h2           | h3             | h4           | t min        |
|----------|--------------|-----------|---------------|---------------|---------------|----------------|--------------|----------------|--------------|--------------|
| 83199    | 1.18<br>(30) | 10-32     |               | .39<br>(9.9)  | .51<br>(13)   | .96<br>(24.4)  | .16<br>(4.1) | 1.38<br>(35.1) | .14<br>(3.6) | .35<br>(9)   |
| 83200    |              | 10-24     |               |               |               |                |              |                |              |              |
| 83201    |              | 1/4-20    |               |               |               |                |              |                |              |              |
| 83202    |              |           | .250          |               |               |                |              |                |              |              |
| 83203    | 1.77<br>(45) | 10-32     |               | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.12<br>(28.5) | .16<br>(4.1) | .39<br>(9.9) |
| 83204    |              | 10-24     |               |               |               |                |              |                |              |              |
| 83205    |              | 1/4-20    |               |               |               |                |              |                |              |              |
| 83206    |              |           | .250          |               |               |                |              |                |              |              |
| 83207    | 2.48<br>(63) | 1/4-20    |               | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 1.34<br>(34)   | .16<br>(4.1) | .55<br>(14)  |
| 83208    |              | 5/16-18   |               |               |               |                |              |                |              |              |
| 83209    |              |           | .250          |               |               |                |              |                |              |              |
| 83210    |              |           | .313          |               |               |                |              |                |              |              |
| 83211    | 3.07<br>(78) | 5/16-18   |               | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 1.34<br>(34)   | .16<br>(4.1) | .55<br>(14)  |
| 83212    |              | 3/8-16    |               |               |               |                |              |                |              |              |
| 83213    |              |           | .313          |               |               |                |              |                |              |              |
| 83214    |              |           | .373          |               |               |                |              |                |              |              |

Dimensions in Inches (Millimeters)

# Straight Zinc Die-Cast Adjustable Levers with Push Button - with Stainless Steel Components



**Handle** - Zinc die-cast

**Threaded Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

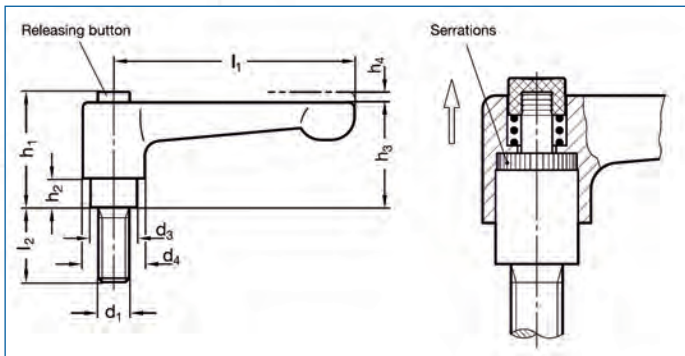
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



**RoHS Compliant**

## Threaded Stud Type

| Inch Table                     |              |           |                |              |               |               |              |             |              |
|--------------------------------|--------------|-----------|----------------|--------------|---------------|---------------|--------------|-------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3           | d4            | h1            | h2           | h3          | h4           |
| Black Lever with Orange Button |              |           |                |              |               |               |              |             |              |
| 83215                          | 1.18<br>(30) | 10-32     | .63            | .39<br>(9.9) | .49<br>(12.5) | .96<br>(24.4) | .16<br>(4.1) | .86<br>(22) | .14<br>(3.6) |
| 83216                          |              | 10-24     | .63            |              |               |               |              |             |              |
| 83217                          |              | 1/4-20    | .39            |              |               |               |              |             |              |
| 83218                          |              |           | .47            |              |               |               |              |             |              |
| 83219                          |              |           | .63            |              |               |               |              |             |              |
| 83220                          |              |           | .78            |              |               |               |              |             |              |
| 83221                          | 1.77<br>(45) | 10-32     | .63            | .51<br>(13)  |               |               |              |             |              |
| 83222                          |              |           | .78            |              |               |               |              |             |              |
| 83223                          |              |           | .98            |              |               |               |              |             |              |
| 83224                          |              |           | 1.26           |              |               |               |              |             |              |
| 83225                          |              |           | 10-24          |              |               |               |              |             |              |

Dimensions in Inches (Millimeters)

**Continued on the Next Page**

# Straight Zinc Die-Cast Adjustable Levers with Push Button - with Stainless Steel Components

**Handle** - Zinc die-cast

**Threaded Insert and Spring** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Push Button** - Nylon plastic

**Screw for Push Button** - Stainless steel, European standard 1.4305 (American standard 303 series)

Adjustable hand levers with push button have a straight lever parallel to the clamping surface. For some applications this presents an advantage due to limits of space or for visual reasons.

The insert is connected to the lever via serrations which can easily be disengaged.

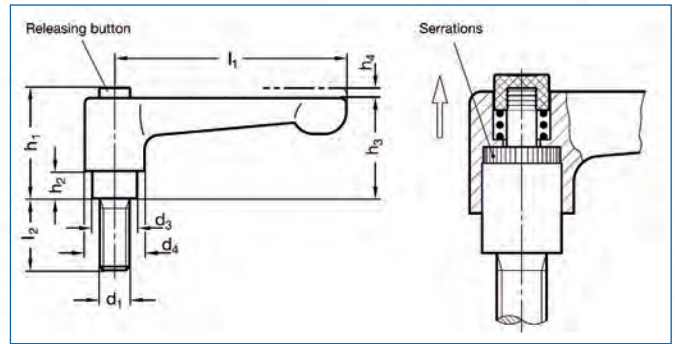
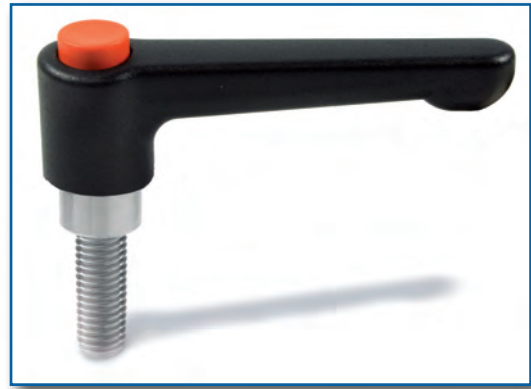
Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

The releasing button is a design element and allows for effortless release action. However, this design is limited to applications that do not require the lever to be disassembled.

Additional modifications including plain bores, tapped threads and special stud lengths are also available upon request.

Also available with an orange lever and black button.

Metric sizes available upon request.



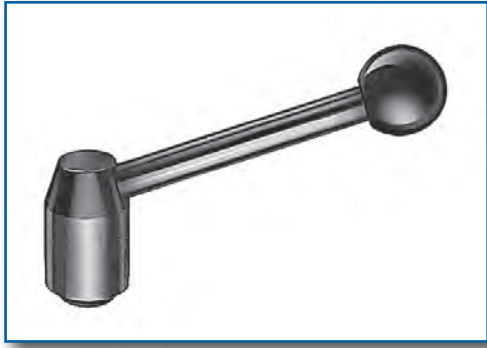
RoHS Compliant

## Threaded Stud Type - Con't

| Inch Table                     |              |           |                |               |               |                |              |                |              |
|--------------------------------|--------------|-----------|----------------|---------------|---------------|----------------|--------------|----------------|--------------|
| Part No.                       | l1           | d1 Thread | l2 Stud Length | d3            | d4            | h1             | h2           | h3             | h4           |
| Black Lever with Orange Button |              |           |                |               |               |                |              |                |              |
| 83226                          | 1.77<br>(45) | 1/4-20    | .78            | .39<br>(9.9)  | .51<br>(13)   | .96<br>(24.4)  | .16<br>(4.1) | .86<br>(22)    | .14<br>(3.6) |
| 83227                          |              |           | .98            |               |               |                |              |                |              |
| 83228                          |              |           | 1.26           |               |               |                |              |                |              |
| 83229                          |              |           | 1.57           |               |               |                |              |                |              |
| 83230                          | 2.48<br>(63) | 5/16-18   | .78            | .53<br>(13.5) | .69<br>(17.5) | 1.22<br>(31)   | .26<br>(6.6) | 1.12<br>(28.5) | .16<br>(4.1) |
| 83231                          |              |           | 1.57           |               |               |                |              |                |              |
| 83232                          |              |           | 1.97           |               |               |                |              |                |              |
| 83233                          |              |           | 2.48           |               |               |                |              |                |              |
| 83234                          |              | 3/8-16    | .78            |               |               |                |              |                |              |
| 83235                          |              |           | 1.26           |               |               |                |              |                |              |
| 83236                          |              |           | 1.57           |               |               |                |              |                |              |
| 83237                          | 3.07<br>(78) | 3/8-16    | 1.57           | .63<br>(16)   | .83<br>(21)   | 1.42<br>(36.1) | .31<br>(7.9) | 1.34<br>(34)   |              |
| 83238                          |              |           | 1.97           |               |               |                |              |                |              |

Dimensions in Inches (Millimeters)

# Heavy Duty Adjustable Levers - Steel



**Body, arm and insert** - Carbon steel, black oxide finish

**Spring** - Steel

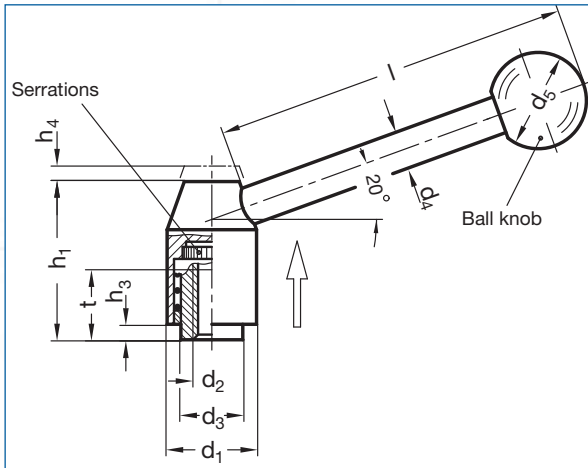
**Ball knob** - Black phenolic plastic,

Heavy Duty Adjustable Tension Levers have proven to be ideal wherever parts have to be clamped in a confined space, or if a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

Straight lever version available upon request.

Metric sizes available upon request.



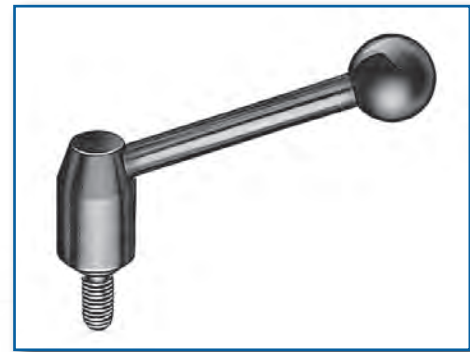
RoHS Compliant

## Tapped Type

Inch Table

| Part Number Angled | d1           | d2 Tapped | d3            | d4           | d5             | h1             | h3           | h4           | l             | t min          |
|--------------------|--------------|-----------|---------------|--------------|----------------|----------------|--------------|--------------|---------------|----------------|
| 83239              | .83<br>(21)  | 1/4-20    | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)    | 1.32<br>(33.5) | .04<br>(1)   | .16<br>(4.1) | 2.76<br>(70)  | .43<br>(11)    |
| 83240              |              | 5/16-18   |               |              |                |                |              |              |               |                |
| 83241              | .94<br>(24)  | 5/16-18   | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)    | 1.57<br>(40)   | .10<br>(2.5) | .18<br>(4.6) | 3.78<br>(96)  | .55<br>(14)    |
| 83242              |              | 3/8-16    |               |              |                |                |              |              |               |                |
| 83243              | 1.10<br>(28) | 3/8-16    | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30)   | 1.91<br>(48.5) | .18<br>(4.6) | .18<br>(4.6) | 4.33<br>(110) | .67<br>(17)    |
| 83244              |              | 1/2-13    |               |              |                |                |              |              |               |                |
| 83245              | 1.30<br>(33) | 1/2-13    | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32)   | 2.17<br>(55.1) | .24<br>(6)   | .22<br>(5.6) | 4.88<br>(124) | .87<br>(22)    |
| 83246              |              | 5/8-11    |               |              |                |                |              |              |               |                |
| 83247              | 1.57<br>(40) | 3/4-10    | 1.10<br>(28)  | .55<br>(14)  | 1.38<br>(35.1) | 2.68<br>(68)   | .24<br>(6)   | .22<br>(5.6) | 5.43<br>(138) | 1.42<br>(36.1) |

Dimensions in Inches (Millimeters)



**Body, arm and insert** - Carbon steel, black oxide finish

**Spring** - Steel

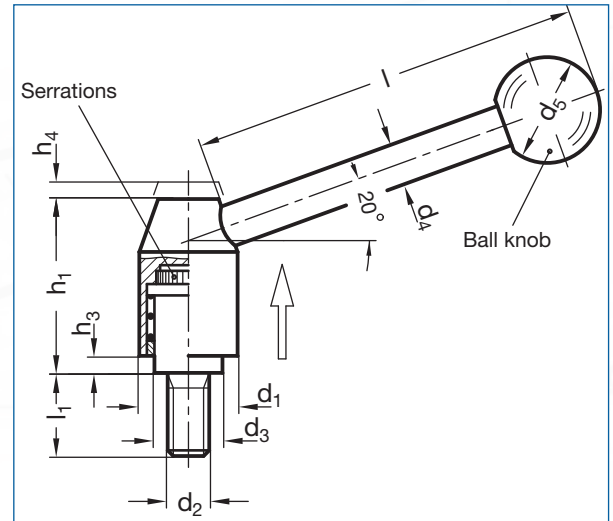
**Ball knob** - Black phenolic plastic

Heavy Duty Adjustable Tension Levers have proven to be ideal wherever parts have to be clamped in a confined space, or if a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

Straight lever version available upon request.

Metric sizes available upon request.



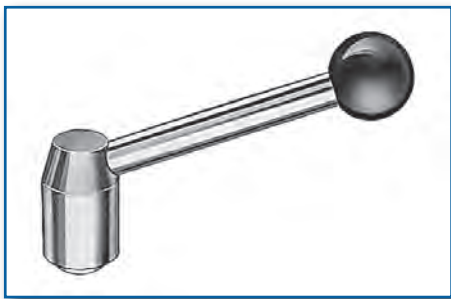
RoHS Compliant

## Threaded Stud Type

| Inch Table  |              |              |                      |               |              |                |                |              |               |              |
|-------------|--------------|--------------|----------------------|---------------|--------------|----------------|----------------|--------------|---------------|--------------|
| Part Number | d1           | d2<br>Thread | l1<br>Stud<br>Length | d3            | d4           | d5             | h1             | h3           | l2            | h4           |
| 83248       | .83<br>(21)  | 5/16-18      | 1.26                 | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)    | 1.32<br>(33.5) | .04<br>(1)   | 2.76<br>(70)  | .16<br>(4.1) |
| 83249       |              |              | 2.48                 |               |              |                |                |              |               |              |
| 83250       | 1.10<br>(28) | 3/8-16       | 1.26                 | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30)   | 1.91<br>(48.5) | .18<br>(4.6) | 4.33<br>(110) | .18<br>(4.6) |
| 83251       |              |              | 1.77                 |               |              |                |                |              |               |              |
| 83252       |              |              | 2.48                 |               |              |                |                |              |               |              |
| 83253       | 1.30<br>(33) | 1/2-13       | 1.26                 | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32)   | 2.17<br>(55.1) | .24<br>(6)   | 4.88<br>(124) | .22<br>(5.6) |
| 83254       |              |              | 1.97                 |               |              |                |                |              |               |              |
| 83255       |              |              | 2.48                 |               |              |                |                |              |               |              |
| 83256       |              | 5/8-11       | 1.57                 |               |              |                |                |              |               |              |
| 83257       |              |              | 2.17                 |               |              |                |                |              |               |              |
| 83258       | 2.48         |              |                      |               |              |                |                |              |               |              |
| 83259       | 1.57<br>(40) | 3/4-10       | 2.48                 | 1.10<br>(28)  | .55<br>(14)  | 1.38<br>(35.1) | 2.68<br>(68)   | .24<br>(6)   | 5.43<br>(138) |              |

Dimensions in Inches (Millimeters)

# Heavy Duty Adjustable Levers - Stainless Steel



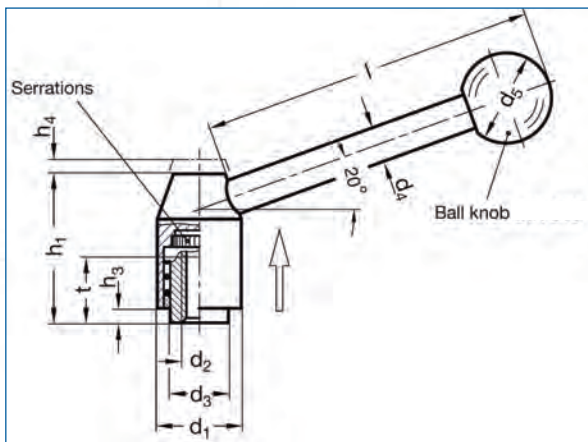
**Body, arm and insert** - Stainless steel, sandblasted satin finish, European standard No. 1.4305 (American standard 303 series)

**Spring** - Stainless steel European standard No. 1.4310 (American standard 301 series)

**Ball knob** - Black phenolic plastic

Stainless Steel heavy duty adjustable tension levers have proven to be ideal wherever parts have to be clamped in a confined space, or if a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.



RoHS Compliant

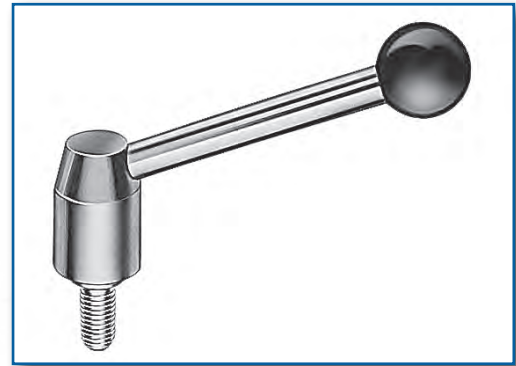
## Tapped Type

Inch Table

| Part Number Angled | d1   | d2 Tapped | d3     | d4    | d5   | h1     | h3    | h4    | l     | t min |
|--------------------|------|-----------|--------|-------|------|--------|-------|-------|-------|-------|
| 83260              | .83  | 1/4-20    | .53    | .31   | .79  | 1.32   | .04   | .16   | 2.76  | .43   |
| 83261              | (21) | 5/16-18   | (13.5) | (7.9) | (20) | (33.5) | (1)   | (4.1) | (70)  | (11)  |
| 83262              | .94  | 5/16-18   | .63    | .39   | .98  | 1.57   | .10   | .18   | 3.78  | .55   |
| 83263              | (24) | 3/8-16    | (16)   | (9.9) | (25) | (40)   | (2.5) | (4.6) | (96)  | (14)  |
| 83264              | 1.10 | 3/8-16    | .75    | .47   | 1.18 | 1.91   | .18   | .18   | 4.33  | .67   |
| 83265              | (28) | 1/2-13    | (19)   | (12)  | (30) | (48.5) | (4.6) | (4.6) | (110) | (17)  |

Dimensions in Inches (Millimeters)





**Body, arm, insert and screw** - Stainless steel, sandblasted satin finish, European standard No. 1.4305 (American standard 303 series)

**Spring** - Stainless steel European standard No. 1.4310 (American standard 301 series)

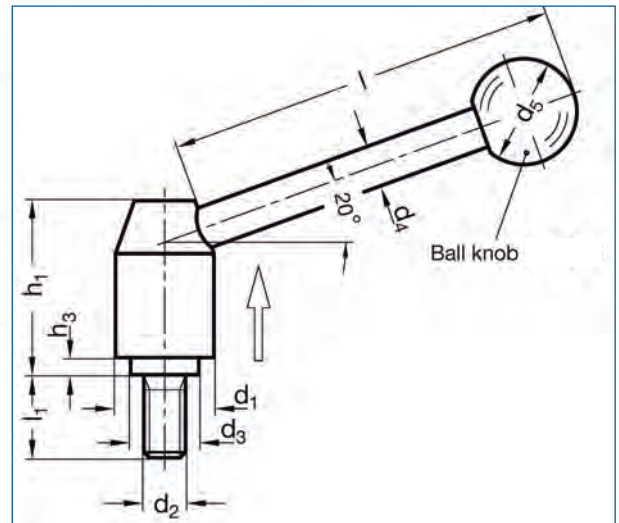
**Ball knob** - Black phenolic plastic

Stainless Steel heavy duty adjustable tension levers have proven to be ideal wherever parts have to be clamped in a confined space, or if a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

Special threads and stud lengths are available upon request.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

| Inch Table         |      |           |                |               |              |              |                |              |               |
|--------------------|------|-----------|----------------|---------------|--------------|--------------|----------------|--------------|---------------|
| Part Number Angled | d1   | d2 Thread | l1 Stud Length | d3            | d4           | d5           | h1             | h3           | l2            |
| 83266              | .83  | 5/16-18   | 1.26           | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)  | 1.32<br>(33.5) | .04<br>(1)   | 2.76<br>(70)  |
| 83267              | (21) |           | 2.48           |               |              |              |                |              |               |
| 83268              | .94  | 3/8-16    | 1.26           | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)  | 1.57<br>(40)   | .10<br>(2.5) | 3.78<br>(96)  |
| 83269              | (24) |           | 2.48           |               |              |              |                |              |               |
| 83270              | 1.10 | 1/2-13    | 1.26           | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30) | 1.91<br>(48.5) | .18<br>(4.6) | 4.33<br>(110) |
| 83271              | (28) |           | 2.48           |               |              |              |                |              |               |

Dimensions in Inches (Millimeters)

# Heavy Duty Adjustable Levers - Steel



**Body, arm, and screw** - Carbon steel, black oxide finish

**Spring** - Steel

**Ball knob** - Black phenolic plastic

**Aluminum disk** - Matte anodized finish

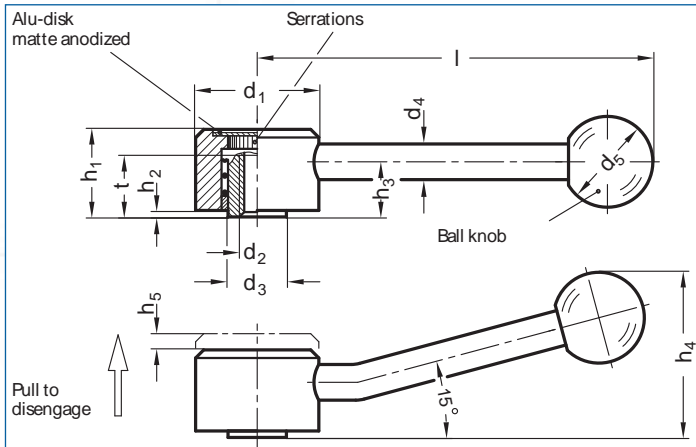
The overall height is reduced to a minimum. The aluminum disk gives these levers a nice appearance.

As all other adjustable levers, they are ideal wherever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

For certain minimum quantities, special plain blind bores, through bores, threads and threaded through bores are available upon request.

Metric sizes available upon request.



RoHS Compliant

## Tapped Type

Inch Table

| Part Number |        | d1             | d2<br>Thread | d3            | d4           | d5           | h1             | h2           | h3            | h4             | h5           | l             | t min       |
|-------------|--------|----------------|--------------|---------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|---------------|-------------|
| Straight    | Angled |                |              |               |              |              |                |              |               |                |              |               |             |
| 83272       | 83276  | 1.26<br>(32)   | 5/16-18      | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)  | .81<br>(20.5)  | .06<br>(1.5) | .49<br>(12.5) | 1.42<br>(36.1) | .16<br>(4.1) | 3.94<br>(100) | .43<br>(11) |
| 83273       | 83277  | 1.42<br>(36.1) | 3/8-16       | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)  | .96<br>(24.4)  | .08<br>(2)   | .59<br>(15)   | 1.77<br>(45)   | .18<br>(4.6) | 4.72<br>(120) | .55<br>(14) |
| 83274       | 83278  | 1.57<br>(40)   | 1/2-13       | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30) | 1.04<br>(26.5) | .08<br>(2)   | .63<br>(16)   | 1.97<br>(50)   | .18<br>(4.6) | 5.12<br>(130) | .67<br>(17) |
| 83275       | 83279  | 1.77<br>(45)   | 5/8-11       | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32) | 1.24<br>(31.5) | .08<br>(2)   | .79<br>(20)   | 2.36<br>(60)   | .20<br>(5.1) | 5.71<br>(145) | .91<br>(23) |

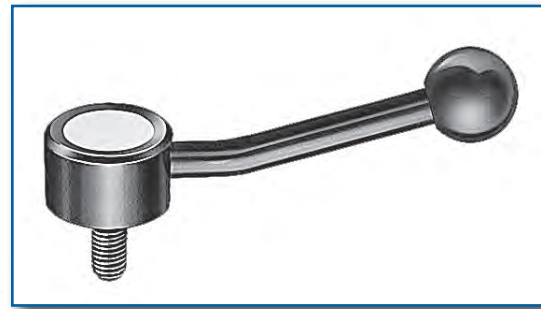
Dimensions in Inches (Millimeters)

**Body, arm, and screw** - Carbon steel, black oxide finish

**Spring** - Steel

**Ball knob** - Black phenolic plastic

**Aluminum disk** - Matte anodized finish



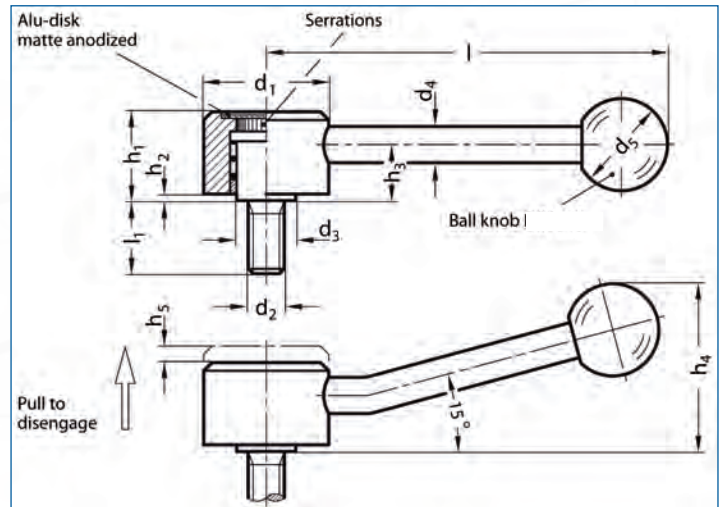
The overall height is reduced to a minimum. The aluminum disk gives these levers a nice appearance.

As all other adjustable levers, they are ideal wherever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

For certain minimum quantities, special plain blind bores, through bores, threads and threaded through bores are available upon request.

Metric sizes available upon request.



RoHS Compliant

## Threaded Stud Type

Inch Table

| Part Number |        | d1             | d2 Thread | l1 Stud Length | d3            | d4           | d5           | h1             | h2           | h3            | h4             | h5           | l             |
|-------------|--------|----------------|-----------|----------------|---------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|---------------|
| Straight    | Angled |                |           |                |               |              |              |                |              |               |                |              |               |
| 83280       | 83289  | 1.26<br>(32)   | 5/16-18   | .78            | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)  | .81<br>(20.5)  | .06<br>(1.5) | .49<br>(12.5) | 1.42<br>(36.1) | .16<br>(4.1) | 3.94<br>(100) |
| 83281       | 83290  |                |           | 1.57           |               |              |              |                |              |               |                |              |               |
| 83282       | 83291  | 1.42<br>(36.1) | 3/8-16    | .98            | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)  | .96<br>(24.4)  | .08<br>(2)   | .59<br>(15)   | 1.77<br>(45)   | .18<br>(4.6) | 4.72<br>(120) |
| 83283       | 83292  |                |           | 2.48           |               |              |              |                |              |               |                |              |               |
| 83284       | 83293  | 1.57<br>(40)   | 1/2-13    | 1.26           | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30) | 1.04<br>(26.5) | .08<br>(2)   | .63<br>(16)   | 1.97<br>(50)   | .18<br>(4.6) | 5.12<br>(130) |
| 83285       | 83294  |                |           | 1.57           |               |              |              |                |              |               |                |              |               |
| 83286       | 83295  |                |           | 2.48           |               |              |              |                |              |               |                |              |               |
| 83287       | 83296  | 1.77<br>(45)   | 5/8-11    | 1.57           | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32) | 1.24<br>(31.5) | .08<br>(2)   | .79<br>(20)   | 2.36<br>(60)   | .20<br>(5.1) | 5.71<br>(145) |
| 83288       | 83297  |                |           | 2.48           |               |              |              |                |              |               |                |              |               |

Dimensions in Inches (Millimeters)



**Body, arm, and screw** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Ball knob** - Black phenolic plastic

**Aluminum disk** - Matte anodized finish

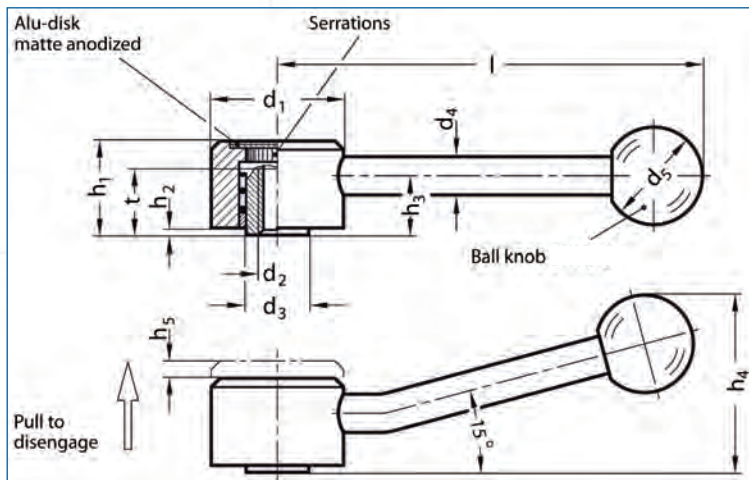
The overall height is reduced to a minimum. The aluminum disk gives these levers a nice appearance.

As all other adjustable levers, they are ideal wherever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

For certain minimum quantities, special plain blind bores, through bores, threads and threaded through bores are available upon request.

Metric sizes available upon request.

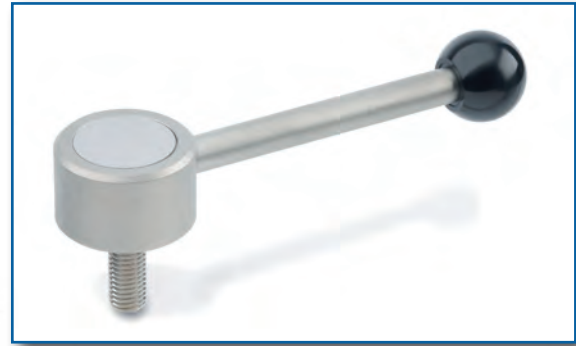


RoHS Compliant

## Tapped Type

| Inch Table  |        |                |           |               |              |              |                |              |               |                |              |               |             |
|-------------|--------|----------------|-----------|---------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|---------------|-------------|
| Part Number |        | d1             | d2 Thread | d3            | d4           | d5           | h1             | h2           | h3            | h4             | h5           | l             | t min       |
| Straight    | Angled |                |           |               |              |              |                |              |               |                |              |               |             |
| 83298       | 83302  | 1.26<br>(32)   | 5/16-18   | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)  | .81<br>(20.5)  | .06<br>(1.5) | .49<br>(12.5) | 1.42<br>(36.1) | .16<br>(4.1) | 3.94<br>(100) | .43<br>(11) |
| 83299       | 83303  | 1.42<br>(36.1) | 3/8-16    | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)  | .96<br>(24.4)  | .08<br>(2)   | .59<br>(15)   | 1.77<br>(45)   | .18<br>(4.6) | 4.72<br>(120) | .55<br>(14) |
| 83300       | 83304  | 1.57<br>(40)   | 1/2-13    | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30) | 1.04<br>(26.5) | .08<br>(2)   | .63<br>(16)   | 1.97<br>(50)   | .18<br>(4.6) | 5.12<br>(130) | .67<br>(17) |
| 83301       | 83305  | 1.77<br>(45)   | 5/8-11    | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32) | 1.24<br>(31.5) | .08<br>(2)   | .79<br>(20)   | 2.36<br>(60)   | .20<br>(5.1) | 5.71<br>(145) | .91<br>(23) |

Dimensions in Inches (Millimeters)



**Body, arm, and screw** - Stainless steel, European Standard No. 1.4305 (American Standard Series 303)

**Ball knob** - Black phenolic plastic

**Aluminum disk** - Matte anodized finish

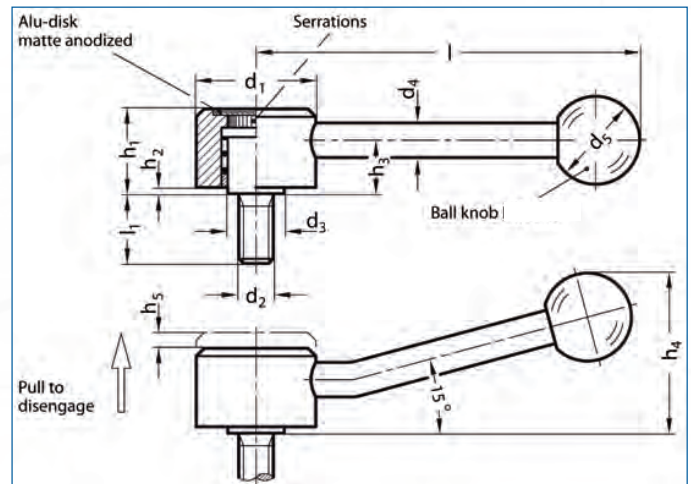
The overall height is reduced to a minimum. The aluminum disk gives these levers a nice appearance.

As all other adjustable levers, they are ideal wherever parts have to be clamped in a confined space, or a particular lever position is required. The threaded insert is connected with the hub via serrations which can be disengaged.

Pulling the lever upwards disengages the serrations, allowing it to be swivelled to the ideal clamping position. Upon releasing the lever, the serrations automatically re-engage.

For certain minimum quantities, special plain blind bores, through bores, threads and threaded through bores are available upon request.

Metric sizes available upon request.



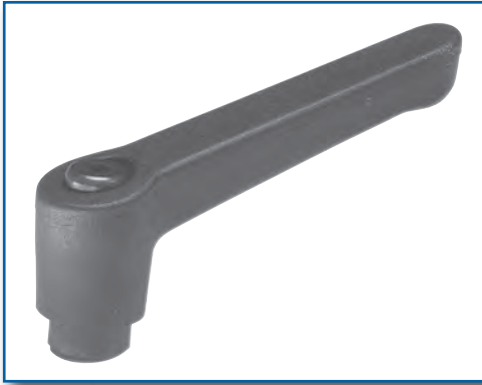
RoHS Compliant

## Threaded Type

| Inch Table  |       |                |           |                |               |              |              |                |              |               |                |              |               |
|-------------|-------|----------------|-----------|----------------|---------------|--------------|--------------|----------------|--------------|---------------|----------------|--------------|---------------|
| Part Number |       | d1             | d2 Thread | l1 Stud Length | d3            | d4           | d5           | h1             | h2           | h3            | h4             | h5           | l             |
| 83306       | 83315 | 1.26<br>(32)   | 5/16-18   | .78            | .53<br>(13.5) | .31<br>(7.9) | .79<br>(20)  | .81<br>(20.5)  | .06<br>(1.5) | .49<br>(12.5) | 1.42<br>(36.1) | .16<br>(4.1) | 3.94<br>(100) |
| 83307       | 83316 |                |           | 1.57           |               |              |              |                |              |               |                |              |               |
| 83308       | 83317 | 1.42<br>(36.1) | 3/8-16    | .98            | .63<br>(16)   | .39<br>(9.9) | .98<br>(25)  | .96<br>(24.4)  | .08<br>(2)   | .59<br>(15)   | 1.77<br>(45)   | .18<br>(4.6) | 4.72<br>(120) |
| 83309       | 83318 |                |           | 2.48           |               |              |              |                |              |               |                |              |               |
| 83310       | 83319 | 1.57<br>(40)   | 1/2-13    | 1.26           | .75<br>(19)   | .47<br>(12)  | 1.18<br>(30) | 1.04<br>(26.5) | .08<br>(2)   | .63<br>(16)   | 1.97<br>(50)   | .18<br>(4.6) | 5.12<br>(130) |
| 83311       | 83320 |                |           | 1.57           |               |              |              |                |              |               |                |              |               |
| 83312       | 83321 |                |           | 2.48           |               |              |              |                |              |               |                |              |               |
| 83313       | 83322 | 1.77<br>(45)   | 5/8-11    | 1.57           | .91<br>(23)   | .47<br>(12)  | 1.26<br>(32) | 1.24<br>(31.5) | .08<br>(2)   | .79<br>(20)   | 2.36<br>(60)   | .20<br>(5.1) | 5.71<br>(145) |
| 83314       | 83323 |                |           | 2.48           |               |              |              |                |              |               |                |              |               |

Dimensions in Inches (Millimeters)

# Fixed Clamping Levers - With Steel Components



**Handle** - Glass fiber reinforced thermoplastic with molded-in stainless steel inlay

**Tapped insert and screw** - Steel, black oxide finish

**Bushing** - Stainless steel

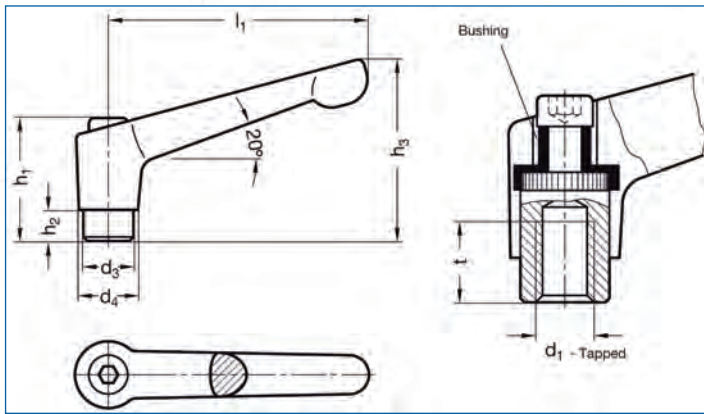
Non-adjustable hand levers are the results of modern industrial design: glass fiber reinforced thermoplastic handle with molded-in metal insert. Handle and tapped insert are assembled together via the screw and bushing.

The solid steel tapped insert allows the operator the ability to apply additional torque where needed to the item being clamped or fastened.

Maximum heat resistance: 110°C (230°F).

Non-adjustable plastic levers with all stainless steel components available upon request.

Metric thread sizes available upon request.



RoHS Compliant

## Tapped Type

| Part Number |        | Inch Table   |           |               |               |                |               |                |              |              |
|-------------|--------|--------------|-----------|---------------|---------------|----------------|---------------|----------------|--------------|--------------|
| Black       | Orange | l1           | d1 Tapped | d3            | d4            | h1             | h2            | h3             | t min        | A/F          |
| 83324       | 83333  | 1.77<br>(45) | 10-32     | .39<br>(9.9)  | .57<br>(14.5) | .96<br>(24.4)  | .16<br>(4.1)  | 1.38<br>(35.1) | .31<br>(7.9) | .12<br>(3)   |
| 83325       | 83334  |              | 10-24     |               |               |                |               |                |              |              |
| 83326       | 83335  |              | 1/4-20    |               |               |                |               |                |              |              |
| 83327       | 83336  | 2.48<br>(63) | 1/4-20    | .53<br>(13.5) | .72<br>(18.3) | 1.22<br>(31)   | .26<br>(6.6)  | 1.77<br>(45)   | .39<br>(9.9) | .16<br>(4.1) |
| 83328       | 83337  |              | 5/16-18   |               |               |                |               |                |              |              |
| 83329       | 83338  | 3.07<br>(78) | 5/16-18   | .63<br>(16)   | .86<br>(21.8) | 1.42<br>(36.1) | .31<br>(7.9)  | 2.17<br>(55.1) | .55<br>(14)  | .16<br>(4.1) |
| 83330       | 83339  |              | 3/8-16    |               |               |                |               |                |              |              |
| 83331       | 83340  | 3.62<br>(92) | 3/8-16    | .75<br>(19)   | .99<br>(25.1) | 1.69<br>(42.9) | .43<br>(10.9) | 2.56<br>(65)   | .67<br>(17)  | .20<br>(5.1) |
| 83332       | 83341  |              | 1/2-13    |               |               |                |               |                |              |              |

Dimensions in Inches (Millimeters)

**Handle** - Glass fiber reinforced thermoplastic with molded-in stainless steel inlay

**Stud type insert and screw** - Steel, black oxide finish

**Bushing** - Stainless steel

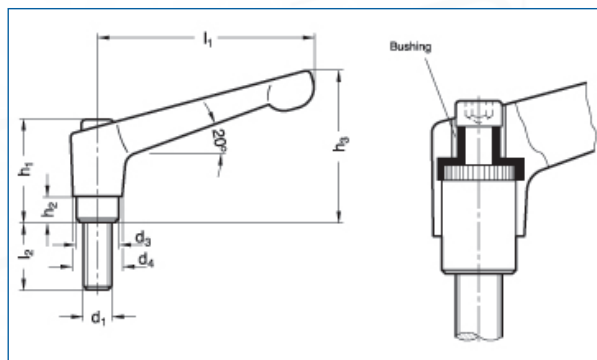
Non-adjustable hand levers are the results of modern industrial design: glass fiber reinforced thermoplastic handle with molded-in metal insert. Handle and tapped insert are assembled together via the screw and bushing.

The solid steel tapped insert allows the operator the ability to apply additional torque where needed to the item being clamped or fastened.

Maximum heat resistance: 110°C (230°F).

Non-adjustable plastic levers with all stainless steel components available upon request.

Metric thread sizes available upon request.



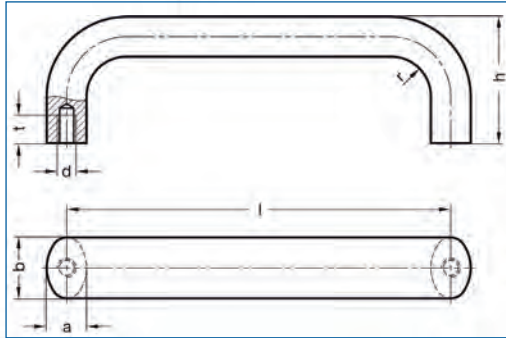
RoHS Compliant

## Threaded Stud Type

| Part Number |        | l1           | d1 Thread | l2 Stud Length | d3            | d4            | h1             | h2            | h3             |
|-------------|--------|--------------|-----------|----------------|---------------|---------------|----------------|---------------|----------------|
| Black       | Orange |              |           |                |               |               |                |               |                |
| 83342       | 83358  | 1.77<br>(45) | 10-32     | .78            | .39<br>(9.9)  | .57<br>(14.5) | .96<br>(24.4)  | .16<br>(4.1)  | 1.38<br>(35.1) |
| 83343       | 83359  |              |           | 1.26           |               |               |                |               |                |
| 83344       | 83360  |              | 1/4-20    | .78            |               |               |                |               |                |
| 83345       | 83361  |              |           | 1.26           |               |               |                |               |                |
| 83346       | 83362  |              |           | 1.77           |               |               |                |               |                |
| 83347       | 83363  | 2.48<br>(63) | 1/4-20    | .98            | .53<br>(13.5) | .72<br>(18.3) | 1.22<br>(31)   | .26<br>(6.6)  | 1.77<br>(45)   |
| 83348       | 83364  |              | .78       |                |               |               |                |               |                |
| 83349       | 83365  |              | 5/16-18   | 1.57           |               |               |                |               |                |
| 83350       | 83366  |              |           | 2.48           |               |               |                |               |                |
| 83351       | 83367  |              | 3/8-16    | .78            |               |               |                |               |                |
| 83352       | 83368  |              |           | 1.26           |               |               |                |               |                |
| 83353       | 83369  |              |           | 2.48           |               |               |                |               |                |
| 83354       | 83370  | 3.07<br>(78) | 3/8-16    | 1.57           | .63<br>(16)   | .86<br>(21.8) | 1.42<br>(36.1) | .31<br>(7.9)  | 2.17<br>(55.1) |
| 83355       | 83371  |              |           | 2.48           |               |               |                |               |                |
| 83356       | 83372  | 3.62<br>(92) | 1/2-13    | 1.26           | .75<br>(19.1) | .99<br>(25.1) | 1.69<br>(42.9) | .43<br>(10.9) | 2.56<br>(65)   |
| 83357       | 83373  |              |           | 1.57           |               |               |                |               |                |

Dimensions in Inches (Millimeters)

# Cabinet "U" Handles - Load Rated Aluminum



**Handle** - Aluminum extrusion

Tapped holes for mounting

Cabinet "U" Handles are made from aluminum, with a smooth surface and a rigid design.

The shape of this handle has good ergonomic features.

When coated with epoxy powder coat resin, its handability is further enhanced.

For certain minimum quantities, special lengths available upon request.

Various size fasteners and kit packaging available upon request.

RoHS Compliant

## Aluminum

Inch Table

| Part Number  |                   | b            | l              | d<br>Tapped | a           | h              | r           | t            | Maximum<br>Vertical<br>Lifting Load<br>(lbs) |
|--------------|-------------------|--------------|----------------|-------------|-------------|----------------|-------------|--------------|--|
| Black Finish | Tumbled<br>Finish |              |                |             |             |                |             |              |  |
| 83374        | 83387             | .79<br>(20)  | 3.94<br>(100)  | 1/4-20      | .51<br>(13) | 1.93<br>(49)   | .51<br>(13) | .39<br>(9.9) | 472  |
| 83375        | 83388             | .79<br>(20)  | 4.41<br>(112)  | 1/4-20      | .51<br>(13) | 1.93<br>(49)   | .51<br>(13) | .39<br>(9.9) | 494  |
| 83376        | 83389             | .79<br>(20)  | 5.04<br>(128)  | 1/4-20      | .51<br>(13) | 2.01<br>(51)   | .51<br>(13) | .39<br>(9.9) | 494  |
| 83377        | 83390             | .79<br>(20)  | 6.30<br>(160)  | 1/4-20      | .51<br>(13) | 2.01<br>(51)   | .51<br>(13) | .39<br>(9.9) | 450  |
| 83378        | 83391             | 1.02<br>(26) | 4.41<br>(112)  | 5/16-18     | .67<br>(17) | 2.17<br>(55.1) | .67<br>(17) | .47<br>(12)  | 1573   |
| 83379        | 83392             | 1.02<br>(26) | 4.60<br>(117)  | 5/16-18     | .67<br>(17) | 2.17<br>(55.1) | .67<br>(17) | .47<br>(12)  | 1348   |
| 83380        | 83393             | 1.02<br>(26) | 5.04<br>(128)  | 5/16-18     | .67<br>(17) | 2.17<br>(55.1) | .67<br>(17) | .47<br>(12)  | 1011   |
| 83381        | 83394             | 1.02<br>(26) | 6.20<br>(157)  | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 786  |
| 83382        | 83395             | 1.02<br>(26) | 7.05<br>(179)  | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 730  |
| 83383        | 83396             | 1.02<br>(26) | 7.56<br>(192)  | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 674  |
| 83384        | 83397             | 1.02<br>(26) | 11.81<br>(300) | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 505  |
| 83385        | 83398             | 1.02<br>(26) | 15.75<br>(400) | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 393  |
| 83386        | 83399             | 1.02<br>(26) | 19.69<br>(500) | 5/16-18     | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | .47<br>(12)  | 337  |

Dimensions in Inches (Millimeters)





**Handle** - Stainless steel, shot blasted, satin finish

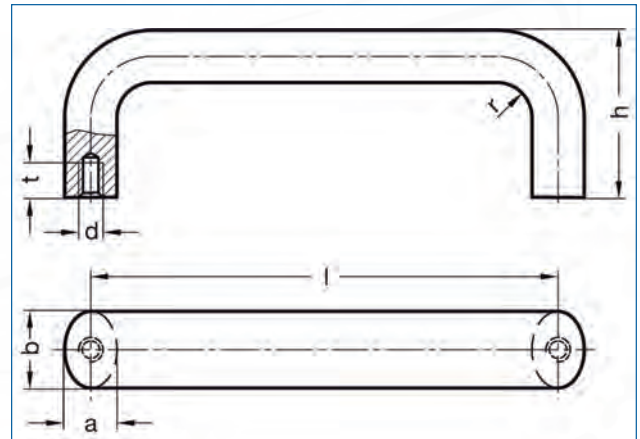
European standard No. 1.4301

American standard 304 series

Tapped holes for mounting

This stainless steel handle often used in the food industry or other such applications where a non-corrosive material is necessary. The shape of this sturdy handle has good ergonomic features.

Various metric size fasteners and kit packaging available upon request.



RoHS Compliant

## Stainless Steel

Metric Table

| Part Number | b           | l             | d Tapped    | a           | h            | r           | t            | Maximum Vertical Lifting Load (lbs) |
|-------------|-------------|---------------|-------------|-------------|--------------|-------------|--------------|-------------------------------------|
| 83400       | 20<br>(.79) | 112<br>(4.41) | M6 x<br>1.0 | 13<br>(.51) | 49<br>(1.93) | 13<br>(.51) | 9.9<br>(.39) | 1124                                |
| 83401       | 20<br>(.79) | 128<br>(5.04) | M6 x<br>1.0 | 13<br>(.51) | 51<br>(2.01) | 13<br>(.51) | 9.9<br>(.39) | 1124                                |

Dimensions in Millimeters (Inches)

# Tubular Grip Handles - Offset Aluminum



**Tube** - Aluminum, dia. 28 mm x 1.5 mm wall thickness

**Handle legs** - Zinc die-cast, black powder coated finish

**Plastic cover caps** - Light gray

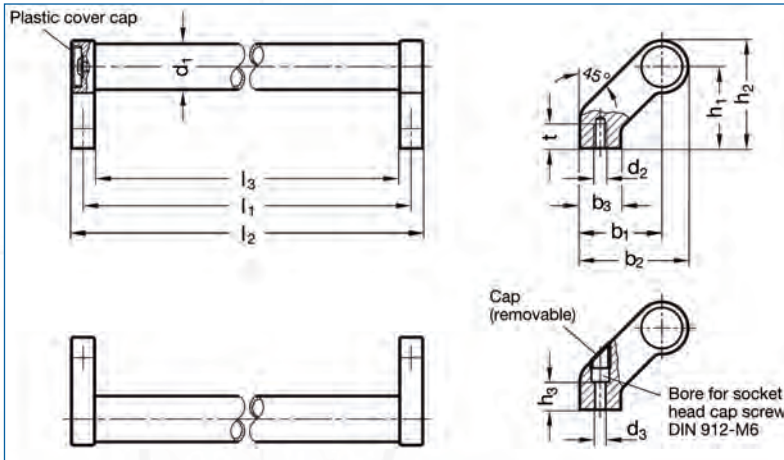
**Removable plastic cap for Type B** - Black technopolymer

**Type A** - Aluminum, dia. 28 mm x 1.5 mm wall thickness  
Black powder-coated pebble finish\* or matte natural anodized finish.

Handle legs are highly stable in relation to their small dimensions. Tube and legs are secured together with self-tapping screws. Screw heads are covered with plastic cover caps to provide a clean and finished look.

Typical use is on double winged swinging doors and sliding doors on machines.

Handles with special tube lengths available upon request.



RoHS Compliant

## Offset Aluminum

Type A Tapped Hole - Inch Table

| Part Number         |                         | d1           | l1<br>+/-0.05<br>mm | d2<br>Tapped | b1          | b2          | b3           | b4           | hh           | n2           | t<br>min.   |
|---------------------|-------------------------|--------------|---------------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|-------------|
| Black Coated Finish | Natural Anodized Finish |              |                     |              |             |             |              |              |              |              |             |
| 83402               | 83408                   | 1.10<br>(28) | 8<br>(203.2)        | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |
| 83403               | 83409                   | 1.10<br>(28) | 10<br>(254)         | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |
| 83404               | 83410                   | 1.10<br>(28) | 12<br>(304.8)       | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |
| 83405               | 83411                   | 1.10<br>(28) | 16<br>(406.4)       | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |
| 83406               | 83412                   | 1.10<br>(28) | 20<br>(508)         | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |
| 83407               | 83413                   | 1.10<br>(28) | 24<br>(609.6)       | 5/16-18      | .98<br>(25) | .55<br>(14) | 1.97<br>(50) | 2.60<br>(66) | 1.97<br>(50) | 2.60<br>(66) | .59<br>(15) |

Dimensions in Inches (Millimeters)



**Tube** - Aluminum, dia. 28 mm x 1.5 mm wall thickness

**Handle legs** - Zinc die-cast, black powder coated finish

**Plastic cover caps** - Light gray

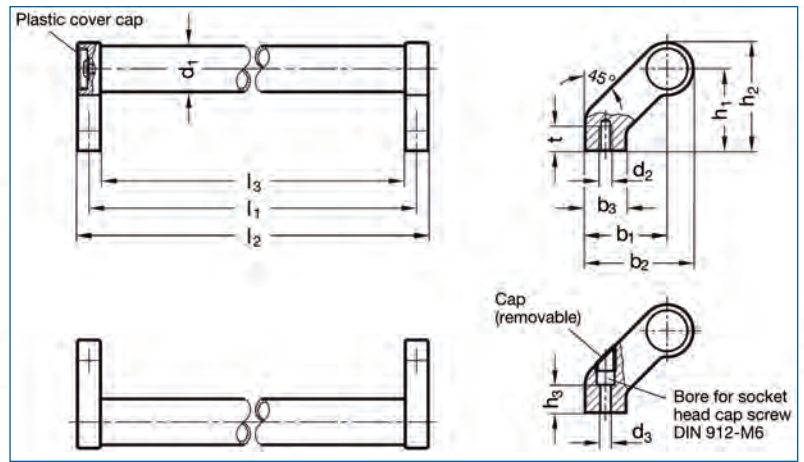
**Removable plastic cap for Type B** - Black technopolymer

**Type A** - Aluminum, dia. 28 mm x 1.5 mm wall thickness  
Black powder-coated "pebble finish" or matte natural anodized finish

Handle legs are highly stable in relation to their small dimensions. Tube and legs are secured together with self-tapping screws. Screw heads are covered with plastic cover caps to provide a clean and finished look.

Typical use is on double winged swinging doors and sliding doors on machines.

Handles with special tube lengths available upon request.



RoHS Compliant

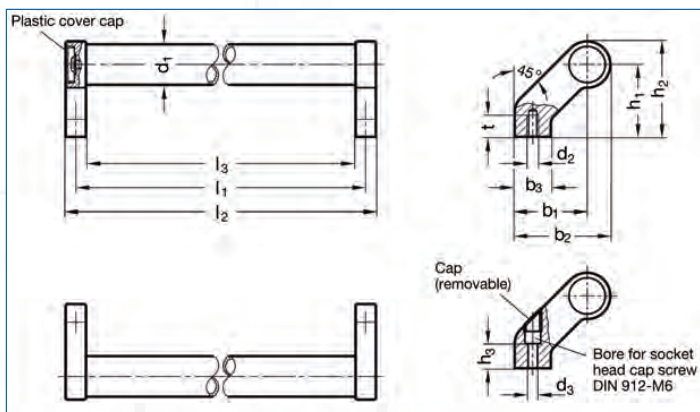
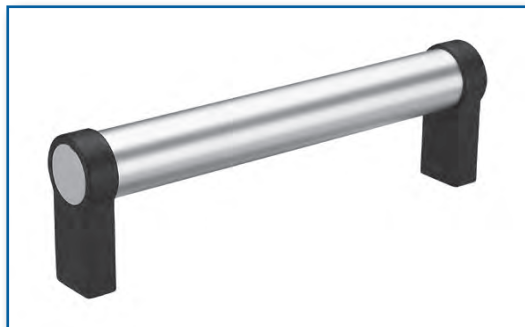
## Offset Aluminum

Type B Thru Hole - Metric Table

| Part Number         |                         | d1           | l1<br>+/-0.05<br>mm | b1          | b2          | b3           | b4           | h1           | h2           | t<br>min.   |
|---------------------|-------------------------|--------------|---------------------|-------------|-------------|--------------|--------------|--------------|--------------|-------------|
| Black Coated Finish | Natural Anodized Finish | 28<br>(1.10) | 200<br>(7.87)       | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83414               | 83420                   | 28<br>(1.10) | 250<br>(9.84)       | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83415               | 83421                   | 28<br>(1.10) | 300<br>(11.81)      | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83416               | 83422                   | 28<br>(1.10) | 400<br>(15.75)      | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83417               | 83423                   | 28<br>(1.10) | 500<br>(19.69)      | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83418               | 83424                   | 28<br>(1.10) | 600<br>(23.62)      | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |
| 83419               | 83425                   | 28<br>(1.10) |                     | 25<br>(.98) | 14<br>(.55) | 50<br>(1.97) | 66<br>(2.60) | 50<br>(1.97) | 66<br>(2.60) | 15<br>(.59) |

Dimensions in Millimeters (Inches)

# Tubular Grip Handles - Straight Aluminum



RoHS Compliant

**Tube** - Aluminum, dia. 28 mm x 1.5 mm wall thickness

**Handle legs** - Zinc die-cast, black powder coated finish

**Plastic cover caps** - Light gray

Inch sizes available in a matte natural anodized finish; black powder-coated "pebble finish"

**Metric sizes available in a matte natural anodized finish or black powder-coated "pebble finish"**

**Socket button head screws:** ISO 7380-M6-20, steel, zinc-plated

**Hexagon nuts:** ISO 4032-M6, steel, zinc-plated

**Washers for Type B:** DIN 125, steel, zinc-plated

Type A mounts from the back (blind tapped hole)

Type B mounts from the operator's side (thru hole - only for size d1=28)

Handle legs are highly stable in relation to their small dimensions. Tube and legs are secured together with self-tapping screws. Screw heads are covered with plastic cover caps to provide a clean and finished look.

Typical use is on double winged swinging doors and sliding doors on machines.

Socket button head screws, hexagon nuts and washers included with Type B versions.

Handles with special tube lengths available upon request.

## Straight

Type A Tapped Hole - Inch Table

| Part Number         |                         | d1           | l1<br>+/-0.05<br>mm | d2<br>Tapped | b           | h1           | h2           | l2              | l3              | t<br>min.   |
|---------------------|-------------------------|--------------|---------------------|--------------|-------------|--------------|--------------|-----------------|-----------------|-------------|
| Black Coated Finish | Natural Anodized Finish |              |                     |              |             |              |              |                 |                 |             |
| 83426               | 83432                   | 1.10<br>(28) | 8<br>(203.2)        | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 8.5<br>(215.9)  | 7.5<br>(190.5)  | .59<br>(15) |
| 83427               | 83433                   | 1.10<br>(28) | 10<br>(254)         | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 10.5<br>(266.7) | 9.5<br>(241.3)  | .59<br>(15) |
| 83428               | 83434                   | 1.10<br>(28) | 12<br>(304.8)       | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 12.5<br>(317.5) | 11.5<br>(292.1) | .59<br>(15) |
| 83429               | 83435                   | 1.10<br>(28) | 16<br>(406.4)       | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 16.5<br>(419.1) | 15.5<br>(393.7) | .59<br>(15) |
| 83430               | 83436                   | 1.10<br>(28) | 20<br>(508)         | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 20.24<br>(514)  | 19.13<br>(486)  | .59<br>(15) |
| 83431               | 83437                   | 1.10<br>(28) | 24<br>(609.6)       | 5/16-18      | .98<br>(25) | 1.97<br>(50) | 2.60<br>(66) | 24.17<br>(614)  | 23.07<br>(586)  | .59<br>(15) |

Dimensions in Inches (Millimeters)

**Tube** - Aluminum, dia. 28 mm x 1.5 mm wall thickness

**Handle legs** - Zinc die-cast, black powder coated finish

**Plastic cover caps** - Light gray

Inch sizes available in a matte natural anodized finish; black powder-coated "pebble finish"

**Metric sizes available in a matte natural anodized finish or black powder-coated "pebble finish"**

**Socket button head screws:** ISO 7380-M6-20, steel, zinc-plated

**Hexagon nuts:** ISO 4032-M6, steel, zinc-plated

**Washers for Type B:** DIN 125, steel, zinc-plated

Type A mounts from the back (blind tapped hole)

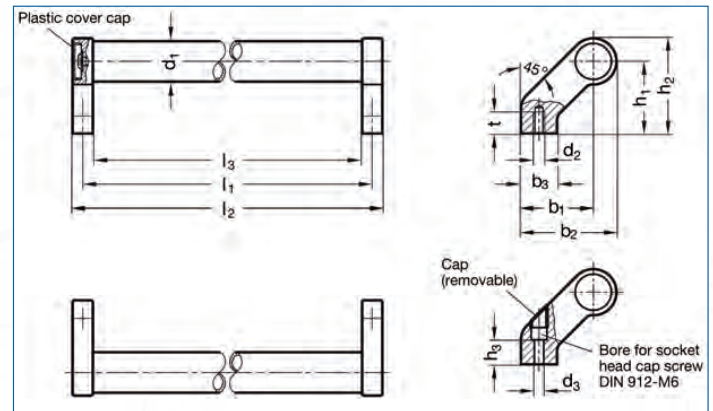
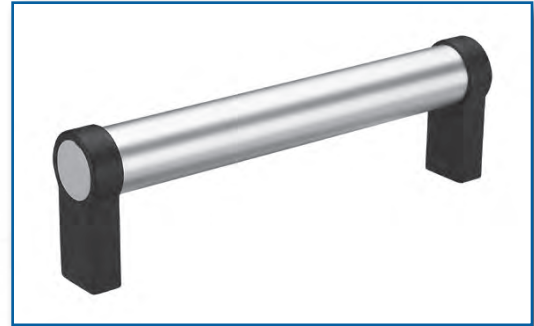
Type B mounts from the operator's side (thru hole - only for size d1=28)

Handle legs are highly stable in relation to their small dimensions. Tube and legs are secured together with self-tapping screws. Screw heads are covered with plastic cover caps to provide a clean and finished look.

Typical use is on double winged swinging doors and sliding doors on machines.

Socket button head screws, hexagon nuts and washers included with Type B versions.

Handles with special tube lengths available upon request.



RoHS Compliant

## Straight

### Type B Thru Hole with Hardware - Metric Table

| Part Number         |                         | d1           | l1<br>+/-0.05<br>mm | d3<br>Tapped | b           | h1           | h2           | l2             | l3             | l4          | t<br>min.   |
|---------------------|-------------------------|--------------|---------------------|--------------|-------------|--------------|--------------|----------------|----------------|-------------|-------------|
| Black Coated Finish | Natural Anodized Finish |              |                     |              |             |              |              |                |                |             |             |
| 83438               | 83444                   | 28<br>(1.10) | 200<br>(7.87)       | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 214<br>(8.43)  | 186<br>(7.32)  | 13<br>(.51) | 15<br>(.59) |
| 83439               | 83445                   | 28<br>(1.10) | 250<br>(9.84)       | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 264<br>(10.39) | 236<br>(9.29)  | 13<br>(.51) | 15<br>(.59) |
| 83440               | 83446                   | 28<br>(1.10) | 300<br>(11.81)      | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 314<br>(12.36) | 286<br>(11.26) | 13<br>(.51) | 15<br>(.59) |
| 83441               | 83447                   | 28<br>(1.10) | 400<br>(15.75)      | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 414<br>(16.30) | 386<br>(15.20) | 13<br>(.51) | 15<br>(.59) |
| 83442               | 83448                   | 28<br>(1.10) | 500<br>(19.69)      | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 514<br>(20.24) | 486<br>(19.13) | 13<br>(.51) | 15<br>(.59) |
| 83443               | 83449                   | 28<br>(1.10) | 600<br>(23.62)      | M6 x<br>1.0  | 25<br>(.98) | 50<br>(1.97) | 66<br>(2.60) | 614<br>(24.17) | 586<br>(23.07) | 13<br>(.51) | 15<br>(.59) |

Dimensions in Millimeters (Inches)



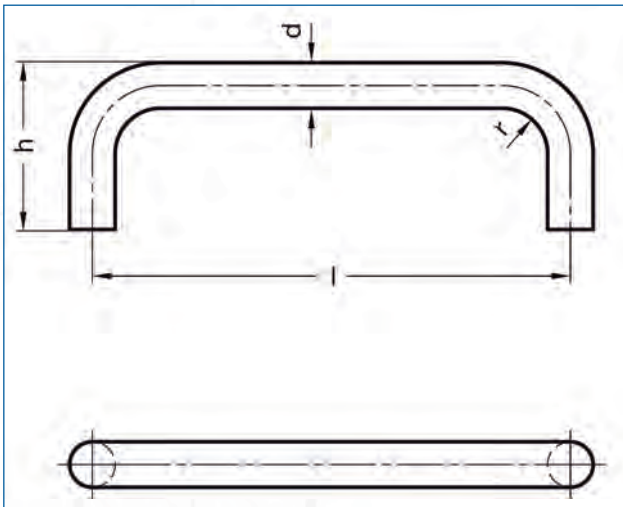
**Handle** - Stainless steel with matte shotblasted finish

European standard No. 1.4301

American standard 300 series

U-handles have no thread and are designed for applications that require the handle to be welded or for applications that require special threads, holes, etc. for mounting.

For certain minimum quantities other lengths according to customer requirements are available upon request.



RoHS Compliant

## Cabinet "U" Handles

Stainless Steel - Inch Table

| Part Number | d1           | l             | h            | r           | Maximum Vertical Lifting Load (lbs) |
|-------------|--------------|---------------|--------------|-------------|-------------------------------------|
| 83450       | .39<br>(9.9) | 4.92<br>(125) | 1.69<br>(43) | .47<br>(12) | 428                                 |
| 83451       | .39<br>(9.9) | 6.30<br>(160) | 1.69<br>(43) | .47<br>(12) | 428                                 |
| 83452       | .47<br>(12)  | 4.92<br>(125) | 2.01<br>(51) | .55<br>(14) | 428                                 |
| 83453       | .47<br>(12)  | 6.30<br>(160) | 2.01<br>(51) | .55<br>(14) | 428                                 |
| 83454       | .47<br>(12)  | 7.87<br>(200) | 2.01<br>(51) | .55<br>(14) | 428                                 |

Dimensions in Inches (Millimeters)



**Handle** - Glass fiber reinforced nylon plastic, matte finish with tapped inserts

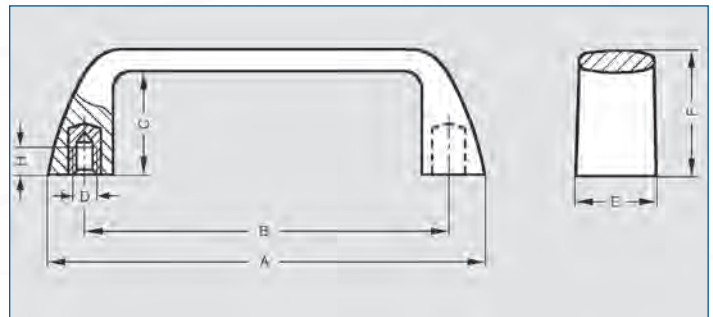
**Tapped inserts** - Brass, molded-in

Ergonomic styling at its best, this plastic cabinet "U" handle is a top quality yet economical solution for most any application.

Maximum heat resistance of nylon plastic: 110°C (230°F).

Various metric and inch size fasteners and kit packaging available upon request.

Metric size tapped inserts available upon request.



RoHS Compliant

## Cabinet "U" Handles

| Nylon Plastic - Inch Table |              |               |          |              |              |            |               |                                     |
|----------------------------|--------------|---------------|----------|--------------|--------------|------------|---------------|-------------------------------------|
| Part Number                | E            | B             | D Tapped | F            | C            | H          | A             | Maximum Vertical Lifting Load (lbs) |
| 83455                      | 1.02<br>(26) | 4.13<br>(105) | 1/4-20   | 1.46<br>(37) | 1.14<br>(29) | .35<br>(9) | 4.76<br>(121) | 484                                 |
| 83456                      | 1.02<br>(26) | 4.33<br>(110) | 1/4-20   | 1.57<br>(40) | 1.26<br>(32) | .35<br>(9) | 5.24<br>(133) | 506                                 |
| 83457                      | 1.02<br>(26) | 4.61<br>(117) | 5/16-18  | 1.57<br>(40) | 1.26<br>(32) | .35<br>(9) | 5.24<br>(133) | 506                                 |

Dimensions in Inches (Millimeters)



**Handle** - Aluminum Extrusion

Through holes for mounting

b = size 20 mm fits M5 or #10 socket cap screw

b = size 26 mm fits M6 or 1/4" socket cap screw

Both dimensions, inch and metric, are interchangeable.

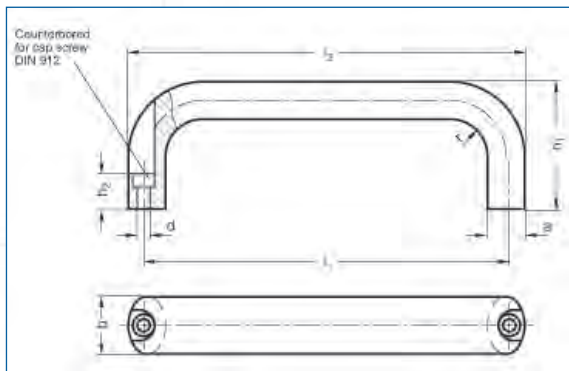
Cabinet "U" handles are from drawn aluminum, with a smooth surface and of a rigid design.

The shape of this handle has good ergonomic features.

When coated with powder coat epoxy resin, its handability is further enhanced.

With certain minimum quantities, lengths other than standard are available, especially extra long versions.

Various metric and inch size fasteners and kit packaging available upon request.



**RoHS Compliant**

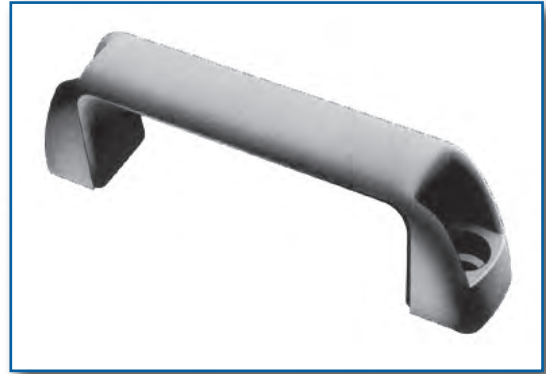
## Cabinet "U" Handles

Aluminum - Inch Table

| Part Number  |                | b            | l1            | d<br>Through<br>Holes | a           | h1             | h2          | l2            | r           | Maximum<br>Vertical<br>Lifting<br>Load (lbs) |
|--------------|----------------|--------------|---------------|-----------------------|-------------|----------------|-------------|---------------|-------------|--|
| Black Finish | Tumbled Finish |              |               |                       |             |                |             |               |             |  |
| 83458        | 83466          | .79<br>(20)  | 3.94<br>(100) | .212<br>(5.4)         | .51<br>(13) | 1.85<br>(47)   | .75<br>(19) | 4.41<br>(112) | .51<br>(13) | 562  |
| 83459        | 83467          | .79<br>(20)  | 4.41<br>(112) | .212<br>(5.4)         | .51<br>(13) | 1.93<br>(49)   | .75<br>(19) | 4.88<br>(124) | .51<br>(13) | 539  |
| 83460        | 83468          | .79<br>(20)  | 5.04<br>(128) | .212<br>(5.4)         | .51<br>(13) | 2.01<br>(51)   | .75<br>(19) | 5.51<br>(140) | .51<br>(13) | 517  |
| 83461        | 83469          | .79<br>(20)  | 6.30<br>(160) | .212<br>(5.4)         | .51<br>(13) | 2.01<br>(51)   | .75<br>(19) | 6.77<br>(172) | .51<br>(13) | 449  |
| 83462        | 83470          | 1.02<br>(26) | 4.57<br>(116) | .248<br>(6.3)         | .67<br>(17) | 2.17<br>(55.1) | .67<br>(17) | 5.12<br>(130) | .67<br>(17) | 1124   |
| 83463        | 83471          | 1.02<br>(26) | 5.20<br>(132) | .248<br>(6.3)         | .67<br>(17) | 2.17<br>(55.1) | .67<br>(17) | 5.75<br>(146) | .67<br>(17) | 899  |
| 83464        | 83472          | 1.02<br>(26) | 6.46<br>(164) | .248<br>(6.3)         | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | 7.01<br>(178) | .67<br>(17) | 809  |
| 83465        | 83473          | 1.02<br>(26) | 7.72<br>(196) | .248<br>(6.3)         | .67<br>(17) | 2.24<br>(57)   | .67<br>(17) | 8.27<br>(210) | .67<br>(17) | 674  |

Dimensions in Inches (Millimeters)





**Handle** - Fiberglass reinforced polypropylene, matte finish black

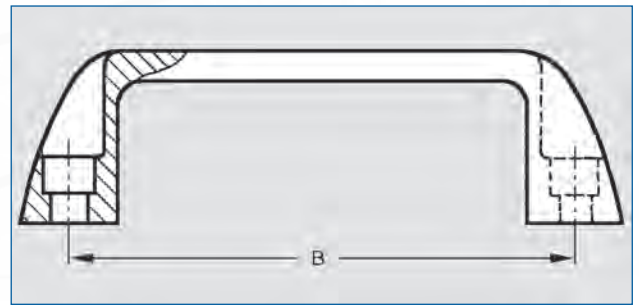
**Mounting holes** - Counterbored for socket cap screws

Both dimensions, inch and metric, are interchangeable

The shape of this handle has good ergonomic features.

Maximum heat resistance: 66°C (150°F).

Various metric and inch size fasteners and kit packaging available upon request.



RoHS Compliant

## Cabinet "U" Handles

Polypropylene Plastic - Inch Table

| Part Number | E            | B              | d Mounting Holes | D             | F              | C            | G            | H          | A             | Maximum Vertical Lifting Load (lbs) |
|-------------|--------------|----------------|------------------|---------------|----------------|--------------|--------------|------------|---------------|-------------------------------------|
| 83474       | .83<br>(21)  | 3.68<br>(93.5) | .256<br>(6.5)    | .41<br>(10.5) | 1.42<br>(36.1) | 1.18<br>(30) | .24<br>(6)   | .28<br>(7) | 4.41<br>(112) | 265                                 |
| 83475       | 1.02<br>(26) | 4.61<br>(117)  | .335<br>(8.5)    | .51<br>(13)   | 1.61<br>(41)   | 1.34<br>(34) | .24<br>(6)   | .35<br>(9) | 5.47<br>(139) | 276                                 |
| 83476       | 1.06<br>(27) | 5.20<br>(132)  | .335<br>(8.5)    | .51<br>(13)   | 1.77<br>(45)   | 1.46<br>(37) | .28<br>(7)   | .35<br>(9) | 6.14<br>(156) | 287                                 |
| 83477       | 1.10<br>(28) | 7.05<br>(179)  | .335<br>(8.5)    | .51<br>(13)   | 1.97<br>(50)   | 1.65<br>(42) | .31<br>(7.9) | .35<br>(9) | 8.03<br>(204) | 287                                 |

Dimensions in Inches (Millimeters)



**Handle** - Glass fiber reinforced nylon plastic, matte finish

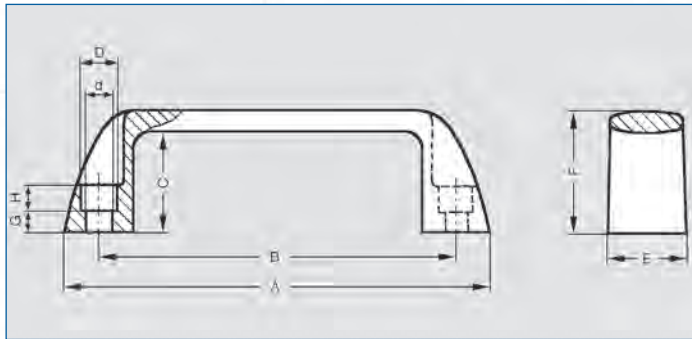
**Mounting holes** - Counterbored for inch or metric socket cap screws

The shape of this handle has good ergonomic features.

Because of the style and durability of this handle, it is suitable for most industries.

Maximum heat resistance: 110°C (230°F).

Various metric and inch size fasteners and kit packaging available upon request.



RoHS Compliant

## Cabinet “U” Handles

Nylon Plastic - Inch Table

| Part Number | E            | B              | d<br>Mounting<br>Holes | D             | F              | C            | G            | H          | A             | Maximum<br>Vertical<br>Lifting<br>Load (lbs) |
|-------------|--------------|----------------|------------------------|---------------|----------------|--------------|--------------|------------|---------------|--|
| 83478       | .83<br>(21)  | 3.68<br>(93.5) | .256<br>(6.5)          | .41<br>(10.5) | 1.42<br>(36.1) | 1.18<br>(30) | .24<br>(6)   | .28<br>(7) | 4.41<br>(112) | 484  |
| 83479       | 1.02<br>(26) | 4.61<br>(117)  | .335<br>(8.5)          | .51<br>(13)   | 1.61<br>(41)   | 1.34<br>(34) | .24<br>(6)   | .35<br>(9) | 5.47<br>(139) | 506  |
| 83480       | 1.06<br>(27) | 5.20<br>(132)  | .335<br>(8.5)          | .51<br>(13)   | 1.77<br>(45)   | 1.46<br>(37) | .28<br>(7)   | .35<br>(9) | 6.14<br>(156) | 550  |
| 83481       | 1.10<br>(28) | 7.05<br>(179)  | .335<br>(8.5)          | .51<br>(13)   | 1.97<br>(50)   | 1.65<br>(42) | .31<br>(7.9) | .35<br>(9) | 8.03<br>(204) | 550  |

Dimensions in Inches (Millimeters)



**Handle** - Cast aluminum

Black powder coated pebble finish

Tapped holes for mounting

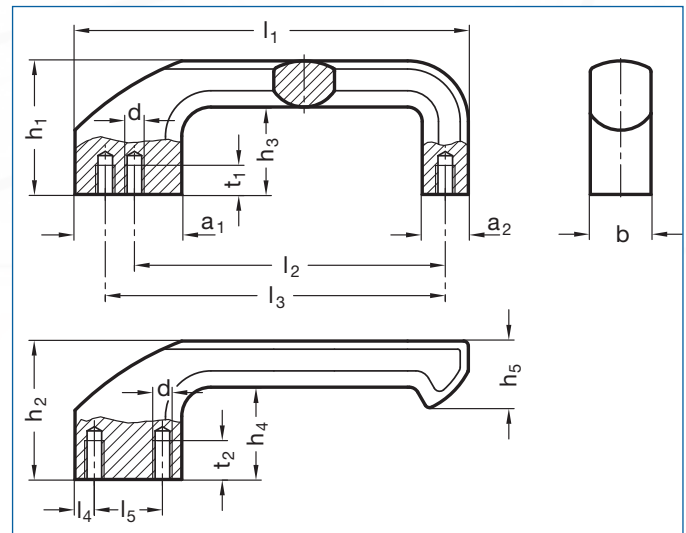
Open-end or closed-end type handles are mainly used in applications requiring a sturdy and rugged grip.

A special characteristic is the thumb rest pad on the front leg.

Because of the dual mounting holes, there is a choice of two center hole mountings on the closed-end handle.

Due to the dual mounting holes on the open-end handle, the handle is secured tightly into position after installation.

Various metric size fasteners and kit packaging available upon request.



RoHS Compliant

## Aluminum

Closed Series - Metric Table

| Part Number Closed Series | l1            | d Tapped     | l2            | l3            | a1           | a2          | b           | h1             | h3             | t1          | Maximum Vertical Lifting Load (lbs) |
|---------------------------|---------------|--------------|---------------|---------------|--------------|-------------|-------------|----------------|----------------|-------------|-------------------------------------|
| 83482                     | 162<br>(6.38) | M8 x<br>1.25 | 128<br>(5.04) | 140<br>(5.51) | 38<br>(1.50) | 19<br>(.75) | 25<br>(.98) | 55.1<br>(2.17) | 36.1<br>(1.42) | 12<br>(.47) | 1798                                |

Open Series Table - Metric Table

| Part Number Open Series | l1            | d Tapped     | l2            | l3            | a1           | a2          | b           | h2           | h4           | h5           | l4           | l5          | t2          | Maximum Vertical Lifting Load (lbs) |
|-------------------------|---------------|--------------|---------------|---------------|--------------|-------------|-------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------------------------------|
| 83483                   | 162<br>(6.38) | M8 x<br>1.25 | 128<br>(5.04) | 140<br>(5.51) | 38<br>(1.50) | 19<br>(.75) | 25<br>(.98) | 57<br>(2.24) | 38<br>(1.50) | 28<br>(1.10) | 7.9<br>(.31) | 22<br>(.87) | 16<br>(.63) | 562                                 |

Dimensions in Millimeters (Inches)



**Hinge:** Reinforced nylon plastic, black matte finish

**Hinge pin:** Stainless steel, AISI 303

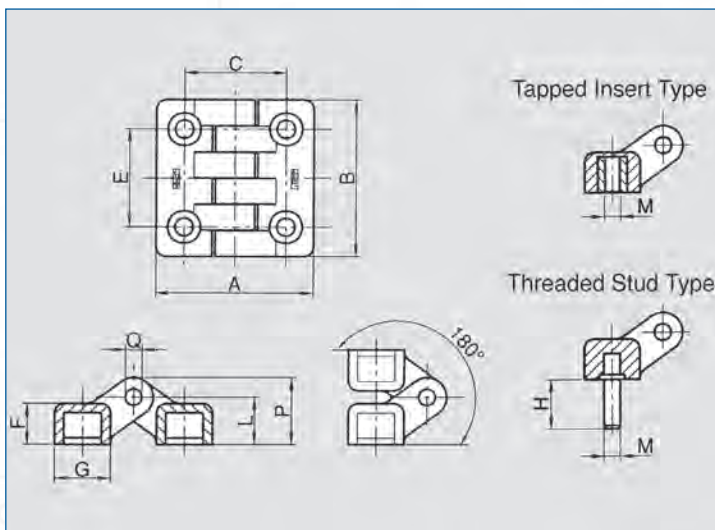
**Tapped insert:** Brass, molded in

**Threaded stud:** Steel, zinc-plated, molded in

An economical, yet very durable, substitute for metal hinges.

Hinges are available in countersunk thru hole, tapped insert, or threaded stud versions upon request.

Various metric and inch size fasteners and kit packaging available upon request.



**RoHS Compliant**

## Hinges

Thru-Hole - Nylon Plastic - Inch Table

| Part Number | A            | B              | C              | D             | E              | F             | G              | L             | P             | Q            |
|-------------|--------------|----------------|----------------|---------------|----------------|---------------|----------------|---------------|---------------|--------------|
| 83484       | 1.57<br>(40) | 1.57<br>(40)   | 1.00<br>(25.5) | .17<br>(4.2)  | 1.00<br>(25.5) | .39<br>(9.9)  | .55<br>(14)    | .45<br>(11.5) | .65<br>(16.5) | .16<br>(4.1) |
| 83485       | 1.89<br>(48) | 1.89<br>(48.1) | 1.22<br>(31)   | .22<br>(5.6)  | 1.18<br>(30)   | .49<br>(12.5) | .67<br>(17)    | .57<br>(14.5) | .81<br>(20.5) | .20<br>(5)   |
| 83486       | 2.56<br>(65) | 2.56<br>(64.9) | 1.57<br>(40)   | .26<br>(6.6)  | 1.57<br>(40)   | .55<br>(14)   | .94<br>(24)    | .67<br>(17)   | .98<br>(25)   | .24<br>(6)   |
| 83487       | 3.86<br>(98) | 3.85<br>(97.8) | 2.48<br>(63)   | .41<br>(10.5) | 2.36<br>(60)   | .83<br>(21)   | 1.38<br>(35.1) | .98<br>(25)   | 1.46<br>(37)  | .31<br>(7.9) |

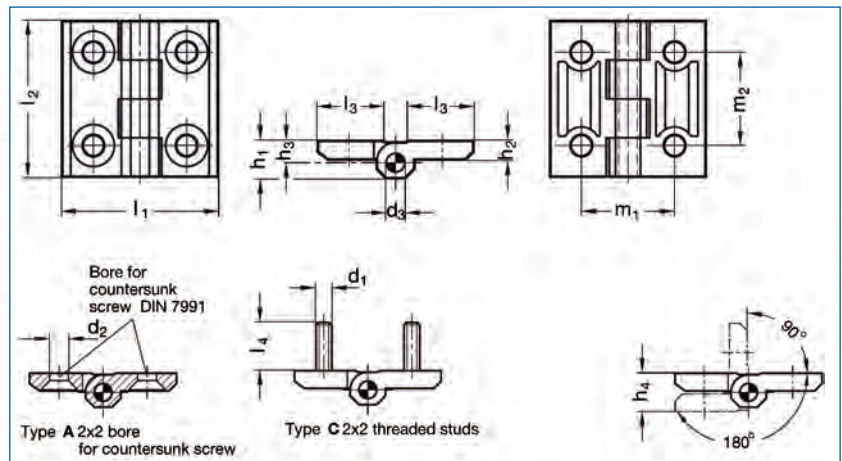
Dimensions in Inches (Millimeters)



**Hinge:** Zinc die-cast, black powder coated, textured finish

**Hinge pin for Type A:** Stainless steel, European standard 1.4305 (American Standard 303 series)

Various metric and inch size fasteners and kit packaging available upon request.



RoHS Compliant

## Hinges

Countersunk Thru Hole - Zinc Die-Cast - Metric Table

| Part Number - Type A | l1           | l2           | d1 Thread | d2 Thru Hole | d3           | h1            | h2           | h3           | h4 +0.5     | l4 Stud Length | m1             | m2             |
|----------------------|--------------|--------------|-----------|--------------|--------------|---------------|--------------|--------------|-------------|----------------|----------------|----------------|
| 83488                | 40<br>(1.57) | 40<br>(1.57) | M4 x .7   | 5.3<br>(.21) | 4.1<br>(.16) | 9<br>(.35)    | 5<br>(.20)   | 5.5<br>(.22) | 11<br>(.43) | 12<br>(.47)    | 25<br>(.98)    | 25<br>(.98)    |
| 83489                | 50<br>(1.97) | 50<br>(1.97) | M6 x 1.0  | 6.4<br>(.25) | 6<br>(.24)   | 11.5<br>(.45) | 6<br>(.24)   | 6.6<br>(.26) | 13<br>(.51) | 12<br>(.47)    | 30<br>(1.18)   | 30<br>(1.18)   |
| 83490                | 60<br>(2.36) | 60<br>(2.36) | M8 x 1.25 | 8.3<br>(.33) | 7.9<br>(.31) | 15<br>(.59)   | 7.9<br>(.31) | 8.5<br>(.33) | 17<br>(.67) | 14<br>(.55)    | 36.1<br>(1.42) | 36.1<br>(1.42) |

Dimensions in Millimeters (Inches)



**Handle:** Aluminum, natural color anodized finish or plastic coated in black textured finish

**End caps:** Technopolymer plastic (Polyamide PA), dark gray

**Mounting:** By means a screw channel where multiple screws can be fastened to secure the handle

Typical applications for the ledge handles include swivel or sliding doors on protective doors and equipment. They are also suitable for use as drawer handles.

The screw channel for screw size M6 (extruded aluminum) allows an optimal number of fixing screws in any position within the dimensions l2. A minimum screw-in depth of 10 mm must be maintained.

The aluminum profile section is available in any length upon request; the end caps are also available individually upon request. Special lengths can be manufactured in upon request.

Heat resistance of end caps: 195° F (90° C).

Various metric size fasteners and kit packaging available upon request.

RoHS Compliant

## Ledge Handles

Aluminum - Inch Table

| Part Number  |                  | l1             | b1             | b2          | b3           | h1           | h2          | l2 screw range | l3          | t           |
|--------------|------------------|----------------|----------------|-------------|--------------|--------------|-------------|----------------|-------------|-------------|
| Black Finish | Natural Aluminum |                |                |             |              |              |             |                |             |             |
| 83491        | 83499            | 4.43<br>(110)  | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 2.60<br>(66)   | .87<br>(22) | .47<br>(12) |
| 83492        | 83500            | 5.12<br>(130)  | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 3.39<br>(86)   | .87<br>(22) | .47<br>(12) |
| 83493        | 83501            | 5.91<br>(150)  | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 4.17<br>(106)  | .87<br>(22) | .47<br>(12) |
| 83494        | 83502            | 7.87<br>(200)  | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 6.14<br>(156)  | .87<br>(22) | .47<br>(12) |
| 83495        | 83503            | 9.84<br>(250)  | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 8.11<br>(206)  | .87<br>(22) | .47<br>(12) |
| 83496        | 83504            | 11.81<br>(300) | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 10.08<br>(256) | .87<br>(22) | .47<br>(12) |
| 83497        | 83505            | 15.75<br>(400) | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 14.02<br>(356) | .87<br>(22) | .47<br>(12) |
| 83498        | 83506            | 19.69<br>(500) | 1.42<br>(36.1) | .51<br>(13) | .31<br>(7.9) | 1.34<br>(34) | .94<br>(24) | 17.95<br>(456) | .87<br>(22) | .47<br>(12) |

Dimensions in Inches (Millimeters)

**Hand piece:** Black phenolic plastic (Duroplast PF) or nylon

**Threaded Spindle:** Steel, zinc plated with internal hexagon

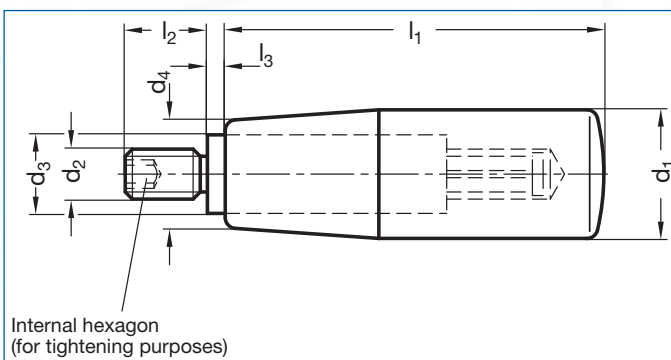
Cylindrical revolving handles are noted for their modern design, and they blend in well with rectangular shaped rim handwheels.

Steel handles are mainly used on safety clutch hand wheels to increase imbalance and thus avoid free wheeling.

Maximum heat resistance of phenolic plastic hand piece: 150°C (300°F).

Maximum heat resistance of nylon plastic hand piece: 110°C (230°F).

For use on this handle: DIN 911 hex keys available.



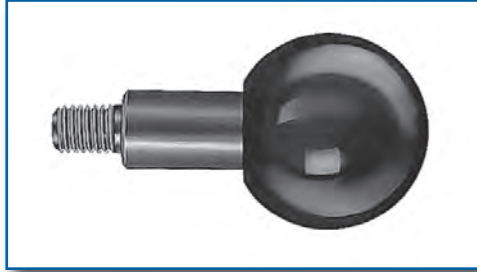
RoHS Compliant

## Cylindrical Revolving Handles

Phenolic and Nylon Plastic - Inch Table

| Part Number |       | d1        | d2 Thread | d3        | d4       | l1         | l2       | l3        | Int. Hex A/F |
|-------------|-------|-----------|-----------|-----------|----------|------------|----------|-----------|--------------|
| Phenolic    | Nylon |           |           |           |          |            |          |           |              |
| 83507       | 83513 | .71 (18)  | 1/4-20    | .39 (9.9) | .59 (15) | 1.57 (40)  | .47 (12) | .10 (2.5) | .118 (3)     |
| 83508       | 83514 | .83 (21)  | 1/4-20    | .39 (9.9) | .67 (17) | 1.97 (50)  | .51 (13) | .10 (2.5) | .118 (3)     |
| 83509       | 83515 | .91 (23)  | 5/16-18   | .51 (13)  | .75 (19) | 2.56 (65)  | .55 (14) | .10 (2.5) | .157 (4)     |
| 83510       | 83516 | 1.02 (26) | 3/8-16    | .51 (13)  | .83 (21) | 3.15 (80)  | .63 (16) | .10 (2.5) | .197 (5)     |
| 83511       | 83517 | 1.10 (28) | 3/8-16    | .51 (13)  | .87 (22) | 3.54 (90)  | .63 (16) | .10 (2.5) | .197 (5)     |
| 83512       | -     | 1.22 (31) | 1/2-13    | .55 (14)  | .98 (25) | 4.02 (102) | .78 (20) | .10 (2.5) | .236 (6)     |

Dimensions in Inches (Millimeters)



**Hand piece:** Black phenolic plastic (Duroplast PF)

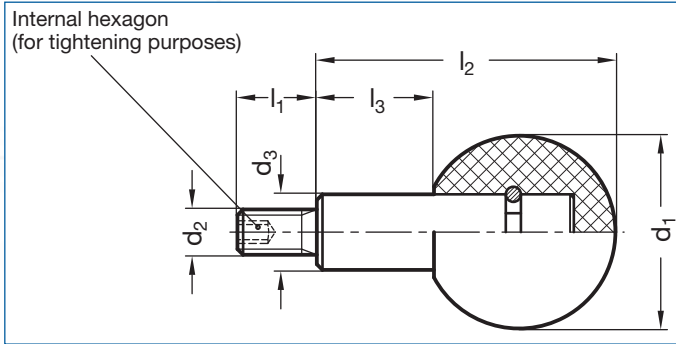
**Threaded spindle:** Steel, zinc-plated

Revolving ball knobs can be utilized instead of revolving handles i.e. with handwheels.

Maximum heat resistance: 150°C (300°F).

For certain minimum quantities, revolving balls knobs with internal threaded shafts are available upon request.

For use on this handle: DIN 911 hex keys available.



**RoHS Compliant**

## Revolving Ball Knobs

Phenolic Plastic - Inch Table

| Part Number | d1           | d2 Thread | d3           | l1          | l2             | l3           | Int. Hex A/F |
|-------------|--------------|-----------|--------------|-------------|----------------|--------------|--------------|
| 83519       | .98<br>(25)  | 1/4-20    | .39<br>(9.9) | .43<br>(11) | 1.48<br>(37.5) | .59<br>(15)  | .118<br>(3)  |
| 83520       | 1.26<br>(32) | 5/16-18   | .51<br>(13)  | .51<br>(13) | 1.89<br>(48)   | .75<br>(19)  | .157<br>(4)  |
| 83521       | 1.57<br>(40) | 3/8-16    | .63<br>(16)  | .55<br>(14) | 2.40<br>(61)   | .94<br>(24)  | .197<br>(5)  |
| 83522       | 1.97<br>(50) | 1/2-13    | .79<br>(20)  | .83<br>(21) | 3.07<br>(78)   | 1.22<br>(31) | .236<br>(6)  |

Dimensions in Inches (Millimeters)





**Material:** 100% Solid Stainless Steel 303

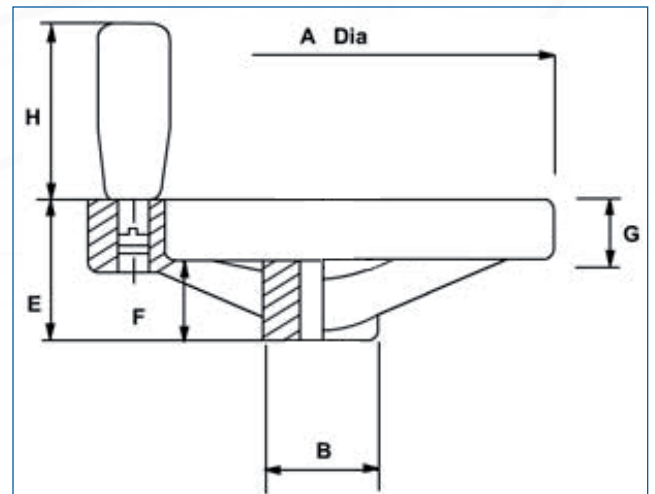
Solid Design, no Cavities

Perfect for Food Service and Medical Applications

Positive Grip with or Without Revolving Handle

Polished Rim, Faced Hub

Hub provided blank for custom bore at an additional cost



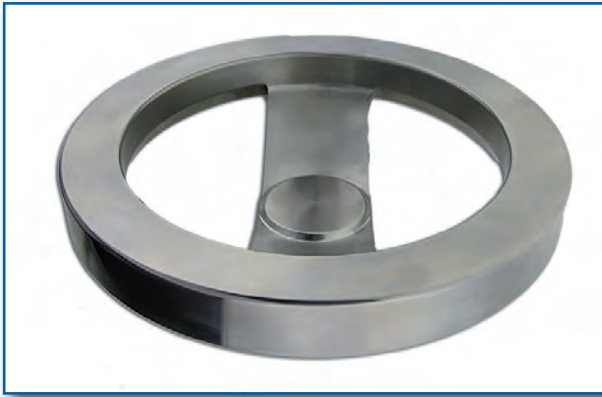
## Handwheels

Stainless Steel - With Handle - Inch Table

| Part Number | Diameter | Material        | Color    | B    | E    | F    | G    | Replacement Handle | Handle    | Handle Length |
|-------------|----------|-----------------|----------|------|------|------|------|--------------------|-----------|---------------|
| 83523       | 4.00     | Stainless Steel | Metallic | 1.25 | 1.77 | 0.81 | .750 | 83526              | Revolving | .43           |
| 83524       | 6.00     | Stainless Steel | Metallic | 1.44 | 2.05 | 1.00 | .750 | 83527              | Revolving | .51           |
| 83525       | 8.00     | Stainless Steel | Metallic | 1.94 | 2.74 | 1.38 | .940 | 83528              | Revolving | .67           |

Dimensions in Inches

# Stainless Steel Handwheels - Two Spoke - Without Handle



**Material:** 100% Solid Stainless Steel 303

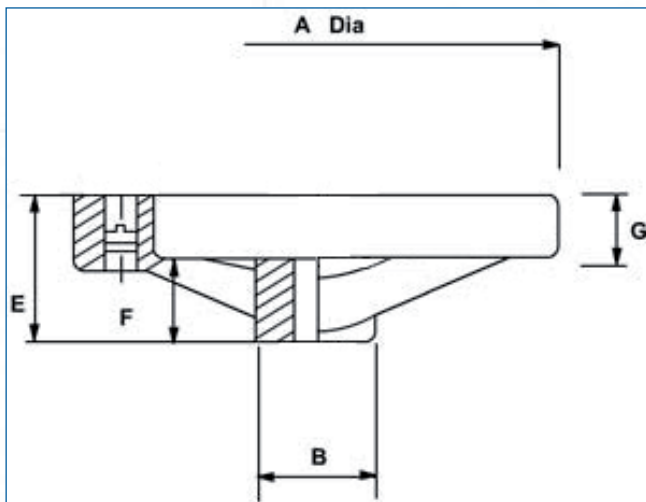
Solid Design, no Cavities

Perfect for Food Service and Medical Applications

Positive Grip with or Without Revolving Handle

Polished Rim, Faced Hub

Hub provided blank for custom bore at an additional cost



## Handwheels

Stainless Steel - Without Handle - Inch Table

| Part Number | Diameter | Material        | Color    | B    | E    | F    | G    | Replacement Handle | Handle    |
|-------------|----------|-----------------|----------|------|------|------|------|--------------------|-----------|
| 83529       | 4.00     | Stainless Steel | Metallic | 1.25 | 1.77 | 0.81 | .750 | 83532              | No Handle |
| 83530       | 6.00     | Stainless Steel | Metallic | 1.44 | 2.05 | 1.00 | .750 | 83533              | No Handle |
| 83531       | 8.00     | Stainless Steel | Metallic | 1.94 | 2.74 | 1.38 | .940 | 83534              | No Handle |

Dimensions in Inches



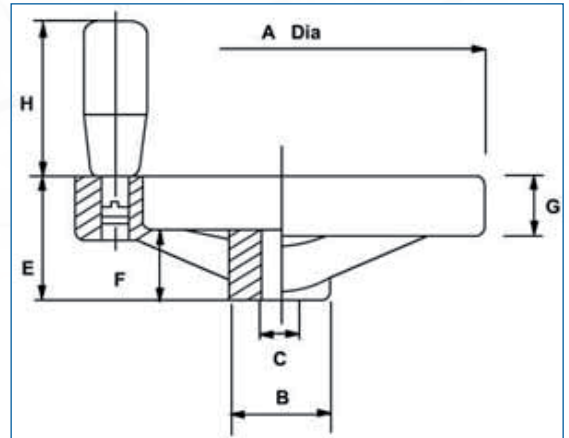
**Material** - Gravity Cast Aluminum

Black Powder Coated Matte Finish

Manual Fold-A-Way Handle Installed

Handle will Fold Down by Pulling on the Handle and Pushing it Toward Center of Wheel

To Engage Handle, Pull and Lift and it will Snap into Position



## Handwheels

Aluminum - With Handle - Inch Table

| Part Number | Diameter | Material | Color | B    | E    | F    | Replacement Handle | Handle     | Bore | Handle Length |
|-------------|----------|----------|-------|------|------|------|--------------------|------------|------|---------------|
| 83535       | 4.00     | Aluminum | Black | 1.25 | 1.77 | 0.81 | 83545              | Fold-A-Way | 0.38 | 2.20          |
| 83536       | 4.00     | Aluminum | Black | 1.25 | 1.77 | 0.81 | 83546              | Fold-A-Way | 0.50 | 2.20          |
| 83537       | 5.00     | Aluminum | Black | 1.31 | 1.93 | 0.88 | 83547              | Fold-A-Way | 0.38 | 2.56          |
| 83538       | 5.00     | Aluminum | Black | 1.31 | 1.93 | 0.88 | 83548              | Fold-A-Way | 0.50 | 2.56          |
| 83539       | 6.00     | Aluminum | Black | 1.44 | 2.05 | 1.00 | 83549              | Fold-A-Way | 0.50 | 2.56          |
| 83540       | 6.00     | Aluminum | Black | 1.44 | 2.05 | 1.00 | 83550              | Fold-A-Way | 0.63 | 2.56          |
| 83541       | 8.00     | Aluminum | Black | 1.94 | 2.74 | 1.38 | 83551              | Fold-A-Way | 0.50 | 3.15          |
| 83542       | 8.00     | Aluminum | Black | 1.94 | 2.74 | 1.38 | 83552              | Fold-A-Way | 0.63 | 3.15          |
| 83543       | 10.00    | Aluminum | Black | 1.94 | 2.80 | 1.38 | 83553              | Fold-A-Way | 0.63 | 3.15          |
| 83544       | 10.00    | Aluminum | Black | 1.94 | 2.80 | 1.38 | 83554              | Fold-A-Way | 0.75 | 3.15          |

Dimensions in Inches

# Aluminum Handwheels - Two Spoke - No Handle

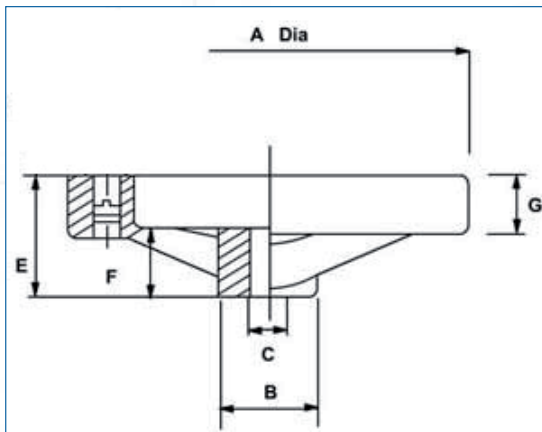


**Material:** Gravity Cast Aluminum

Black Powder Coated Matte Finish

Available with or without revolving handle

Black Duroplast Handle with Steel Insert



## Handwheels

Aluminum - Without Handle - Inch Table

| Part Number | Diameter | Material | Color | B    | E    | F    | Replacement Handle | Handle    | Bore | Handle Length |
|-------------|----------|----------|-------|------|------|------|--------------------|-----------|------|---------------|
| 83555       | 4.00     | Aluminum | Black | 1.25 | 1.77 | 0.81 | 83565              | No Handle | 0.38 | 2.20          |
| 83556       | 4.00     | Aluminum | Black | 1.25 | 1.77 | 0.81 | 83566              | No Handle | 0.50 | 2.20          |
| 83557       | 5.00     | Aluminum | Black | 1.31 | 1.93 | 0.88 | 83567              | No Handle | 0.38 | 2.56          |
| 83558       | 5.00     | Aluminum | Black | 1.31 | 1.93 | 0.88 | 83568              | No Handle | 0.50 | 2.56          |
| 83559       | 6.00     | Aluminum | Black | 1.44 | 2.05 | 1.00 | 83569              | No Handle | 0.50 | 2.56          |
| 83560       | 6.00     | Aluminum | Black | 1.44 | 2.05 | 1.00 | 83570              | No Handle | 0.63 | 2.56          |
| 83561       | 8.00     | Aluminum | Black | 1.94 | 2.74 | 1.38 | 83571              | No Handle | 0.50 | 3.15          |
| 83562       | 8.00     | Aluminum | Black | 1.94 | 2.74 | 1.38 | 83572              | No Handle | 0.63 | 3.15          |
| 83563       | 10.00    | Aluminum | Black | 1.94 | 2.80 | 1.38 | 83573              | No Handle | 0.63 | 3.15          |
| 83564       | 10.00    | Aluminum | Black | 1.94 | 2.80 | 1.38 | 83574              | No Handle | 0.75 | 3.15          |

Dimensions in Inches



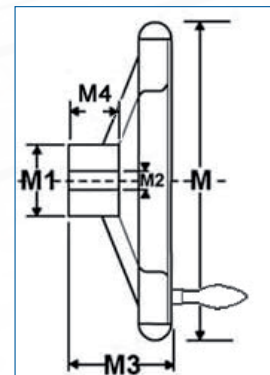
**Material:** Fine grain cast iron

**Rim Finish:** High-luster chrome plating

**Spoke & Hub:** Sand-blasted gray

Offset design is perfect for applications requiring clearance

Special bores, keyways, etc are also available



## Cast Iron

Phenolic Plastic - Inch Table

| Part Number | Diameter | Material  | Color    | Handle           | M1   | M2 - Bore | M3   | Replacement Handle | Handle Tap Size | Hub Height |
|-------------|----------|-----------|----------|------------------|------|-----------|------|--------------------|-----------------|------------|
| 83575       | 4.00     | Cast Iron | Metallic | Revolving Handle | 1.57 | 0.38      | 1.69 | 83586              | 5/16-18         | 0.90       |
| 83576       | 5.00     | Cast Iron | Metallic | Revolving Handle | 1.89 | 0.38      | 1.97 | 83587              | 5/16-18         | 0.98       |
| 83577       | 6.00     | Cast Iron | Metallic | Revolving Handle | 1.97 | 0.50      | 2.08 | 83588              | 3/8-16          | 1.17       |
| 83578       | 7.00     | Cast Iron | Metallic | Revolving Handle | 2.09 | 0.50      | 2.28 | 83589              | 3/8-16          | 1.17       |
| 83579       | 8.00     | Cast Iron | Metallic | Revolving Handle | 2.32 | 0.63      | 2.28 | 83590              | 3/8-16          | 1.21       |
| 83580       | 10.00    | Cast Iron | Metallic | Revolving Handle | 2.64 | 0.75      | 2.48 | 83591              | 3/8-16          | 1.25       |
| 83581       | 12.00    | Cast Iron | Metallic | Revolving Handle | 2.75 | 0.75      | 2.83 | 83592              | 3/8-16          | 1.52       |
| 83582       | 14.00    | Cast Iron | Metallic | Revolving Handle | 2.91 | 0.75      | 3.23 | 83593              | 3/8-16          | 1.68       |
| 83583       | 16.00    | Cast Iron | Metallic | Revolving Handle | 3.31 | 0.88      | 3.74 | 83594              | 3/8-16          | 1.83       |
| 83584       | 18.00    | Cast Iron | Metallic | Revolving Handle | 3.31 | 1.00      | 3.74 | 83595              | 3/8-16          | 1.87       |
| 83585       | 20.00    | Cast Iron | Metallic | Revolving Handle | 3.31 | 1.00      | 3.74 | 83596              | 3/8-16          | 1.95       |

Dimensions in Inches

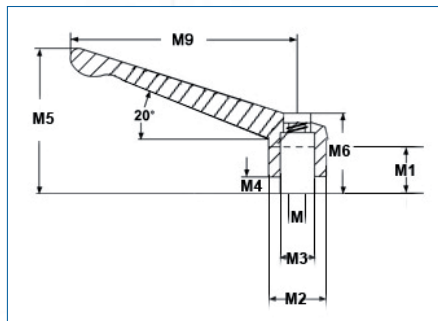


Handle is Made from Solid 303 Stainless Steel and Completely Cavity Free.

The ideal handle solution for the medical, food, chemical, pharmaceutical and marine industries.

The handle is smooth with a bright finish and is strong and attractive.

**Life & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.



## Stainless Steel Inserts

Tapped - Inch Table

| Part Number | Mounting Type | Insert Material | Handle Material | M-Thread | M1   | M2   | M3   | M4   | M5   | M6   | M9   | Size - Adjustable Handle |
|-------------|---------------|-----------------|-----------------|----------|------|------|------|------|------|------|------|--------------------------|
| 83597       | Blank         | Stainless Steel | Stainless Steel | N/A      | 0.35 | 0.53 | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1                        |
| 83598       | Threaded      | Stainless Steel | Stainless Steel | 10-24    | 0.35 | 0.53 | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1                        |
| 83599       | Threaded      | Stainless Steel | Stainless Steel | 1/4-20   | 0.35 | 0.53 | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1                        |
| 83600       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 0.35 | 0.53 | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1                        |
| 83601       | Threaded      | Stainless Steel | Stainless Steel | 10-32    | 0.35 | 0.53 | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1                        |
| 83602       | Blank         | Stainless Steel | Stainless Steel | N/A      | 0.47 | 0.71 | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2                        |
| 83603       | Threaded      | Stainless Steel | Stainless Steel | 1/4-20   | 0.47 | 0.71 | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2                        |
| 83604       | Threaded      | Stainless Steel | Stainless Steel | 5/16-18  | 0.47 | 0.71 | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2                        |
| 83605       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 0.47 | 0.71 | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2                        |
| 83606       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 0.47 | 0.71 | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2                        |
| 83607       | Blank         | Stainless Steel | Stainless Steel | N/A      | 0.55 | 0.84 | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 3                        |
| 83608       | Threaded      | Stainless Steel | Stainless Steel | 5/16-18  | 0.55 | 0.84 | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 3                        |
| 83609       | Threaded      | Stainless Steel | Stainless Steel | 3/8-16   | 0.55 | 0.84 | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 3                        |
| 83610       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 0.55 | 0.84 | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 3                        |
| 83611       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 0.55 | 0.84 | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 3                        |

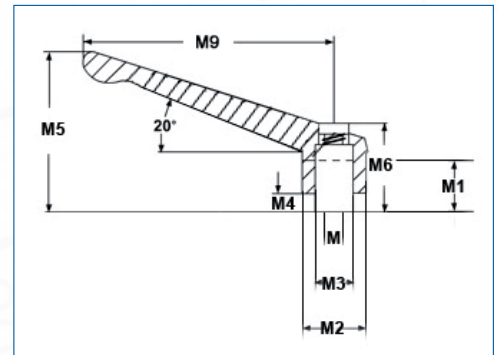
Dimensions in Inches

Handle is Made from Solid 303 Stainless Steel and Completely Cavity Free.

The ideal handle solution for the medical, food, chemical, pharmaceutical and marine industries.

The handle is smooth with a bright finish and is strong and attractive.

**Life & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

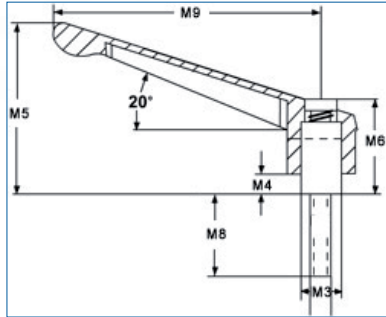


## Stainless Steel Inserts

Tapped - Metric Table

| Part Number | Mounting Type | Insert Material | Handle Material | M-Thread | M1    | M2    | M3    | M4    | M5    | M6    | M9    | Size - Adjustable Handle |
|-------------|---------------|-----------------|-----------------|----------|-------|-------|-------|-------|-------|-------|-------|--------------------------|
| 83612       | Threaded      | Stainless Steel | Stainless Steel | M5       | 9.00  | 13.50 | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 1                        |
| 83613       | Threaded      | Stainless Steel | Stainless Steel | M6       | 9.00  | 13.50 | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 1                        |
| 83614       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 9.00  | 13.50 | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 1                        |
| 83615       | Threaded      | Stainless Steel | Stainless Steel | M6       | 12.00 | 18.00 | 13.50 | 6.50  | 43.00 | 29.00 | 65.00 | 2                        |
| 83616       | Threaded      | Stainless Steel | Stainless Steel | M8       | 12.00 | 18.00 | 13.50 | 6.50  | 43.00 | 29.00 | 65.00 | 2                        |
| 83617       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 12.00 | 18.00 | 13.50 | 6.50  | 43.00 | 29.00 | 65.00 | 2                        |
| 83618       | Threaded      | Stainless Steel | Stainless Steel | M8       | 14.00 | 21.50 | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 3                        |
| 83619       | Threaded      | Stainless Steel | Stainless Steel | M10      | 14.00 | 21.50 | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 3                        |
| 83620       | Reamed        | Stainless Steel | Stainless Steel | N/A      | 14.00 | 21.50 | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 3                        |

Dimensions in Millimeters



All components made from 300 grade stainless steel

Instantly Adjustable to 20-45 Different Handle Positions Depending on Size

Solid cavity free design

Bright mirror-like polished finish

Insert - Machined from 1 piece solid bar

**Life & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

## Stainless Steel Inserts

Stud - Inch Table

| Part Number | Mounting Type | M - Thread | M2   | M4   | M5   | M6   | M9   | M8   | Size - Adjustable Handle |
|-------------|---------------|------------|------|------|------|------|------|------|--------------------------|
| 83621       | Stud          | 10-32      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.39 | 1                        |
| 83622       | Stud          | 10-32      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.59 | 1                        |
| 83623       | Stud          | 10-32      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.78 | 1                        |
| 83624       | Stud          | 10-32      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1.18 | 1                        |
| 83625       | Stud          | 10-24      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.39 | 1                        |
| 83626       | Stud          | 10-24      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.59 | 1                        |
| 83627       | Stud          | 10-24      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.78 | 1                        |
| 83628       | Stud          | 10-24      | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1.18 | 1                        |
| 83629       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.39 | 1                        |
| 83630       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.59 | 1                        |
| 83631       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 0.78 | 1                        |
| 83632       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1.18 | 1                        |
| 83633       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1.57 | 1                        |
| 83634       | Stud          | 1/4-20     | 0.39 | 0.15 | 1.22 | 0.95 | 1.57 | 1.77 | 1                        |
| 83635       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 0.59 | 2                        |
| 83636       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 0.78 | 2                        |
| 83637       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 1.18 | 2                        |
| 83638       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 1.57 | 2                        |
| 83639       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 1.77 | 2                        |
| 83640       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 1.96 | 2                        |
| 83641       | Stud          | 5/16-18    | 0.53 | 0.25 | 1.69 | 1.14 | 2.56 | 2.36 | 2                        |
| 83642       | Stud          | 3/8-16     | 0.62 | 0.39 | 1.69 | 1.14 | 2.56 | 0.59 | 3                        |
| 83643       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 0.78 | 3                        |
| 83644       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 1.18 | 3                        |
| 83645       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 1.57 | 3                        |
| 83646       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 1.77 | 3                        |
| 83647       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 1.96 | 3                        |
| 83648       | Stud          | 3/8-16     | 0.62 | 0.39 | 2.16 | 1.47 | 3.15 | 2.36 | 3                        |

Dimensions in Inches



All components made from 300 grade stainless steel

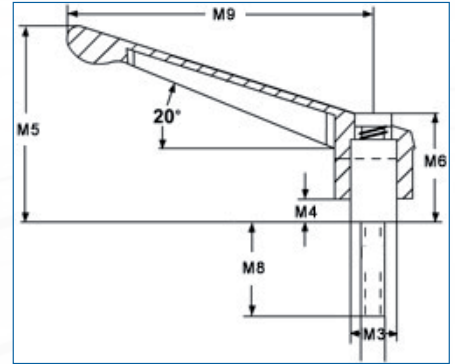
Instantly Adjustable to 20-45 Different Handle Positions Depending on Size

Solid cavity free design

Bright mirror-like polished finish

Insert - Machined from 1 piece solid bar

**Life & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.



## Stainless Steel Inserts

Stud - Metric Table

| Part Number | Mounting Type | M - Thread | M2    | M3    | M5    | M6    | M9    | M8    | Size - Adjustable Handle |
|-------------|---------------|------------|-------|-------|-------|-------|-------|-------|--------------------------|
| 83649       | Stud          | M5         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 15.00 | 1                        |
| 83650       | Stud          | M5         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 20.00 | 1                        |
| 83651       | Stud          | M5         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 25.00 | 1                        |
| 83652       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 10.00 | 1                        |
| 83653       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 15.00 | 1                        |
| 83654       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 20.00 | 1                        |
| 83655       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 25.00 | 1                        |
| 83656       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 30.00 | 1                        |
| 83657       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 35.00 | 1                        |
| 83658       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 40.00 | 1                        |
| 83659       | Stud          | M6         | 10.00 | 4.00  | 31.00 | 24.00 | 40.00 | 45.00 | 1                        |
| 83660       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 15.00 | 3                        |
| 83661       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 20.00 | 3                        |
| 83662       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 25.00 | 3                        |
| 83663       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 30.00 | 3                        |
| 83664       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 35.00 | 3                        |
| 83665       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 40.00 | 3                        |
| 83666       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 45.00 | 3                        |
| 83667       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 50.00 | 3                        |
| 83668       | Stud          | M10        | 16.00 | 10.00 | 55.00 | 37.50 | 80.00 | 60.00 | 3                        |

Dimensions in Millimeters

# Stainless Steel Crank Handle - With Revolving Handle - Inch



304 Grade High Strength Stainless Steel

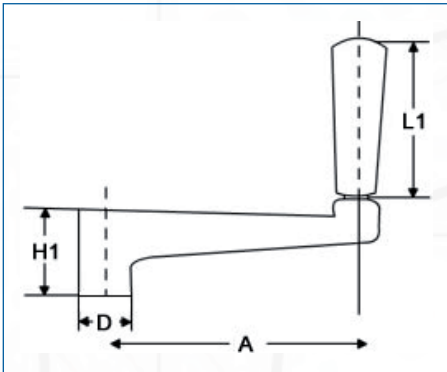
Revolving Stainless Steel Handle

Hole for Handle is Tapped in Crank for Easy Removal or Insertion

Solid cavity free construction

Hub is provided blank for your custom application

The only true 100% solid stainless steel crank handle on the market



## Stainless Steel Crank Handle

With Revolving Handle - Inch Table

| Part Number | Material        | Color           | Size | A    | D    | H1   | L1   | Handle Type      |
|-------------|-----------------|-----------------|------|------|------|------|------|------------------|
| 83669       | Stainless Steel | Stainless Steel | 1    | 3.15 | 0.68 | 1.08 | 2.00 | Revolving Handle |
| 83670       | Stainless Steel | Stainless Steel | 2    | 3.93 | 0.77 | 1.15 | 2.25 | Revolving Handle |
| 83671       | Stainless Steel | Stainless Steel | 3    | 4.92 | 0.90 | 1.38 | 2.50 | Revolving Handle |

Dimensions in Inches

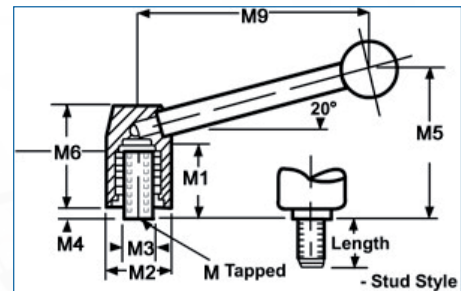
Solid Steel Heavy Duty Adjustable Lever is Made From Carbon Steel with High Quality Black Oxide Finish

Totally Enclosed Construction

Black Plastic Ball Knob on Handle End for a Beautiful finished appearance

5 Heavy Duty Sizes to Meet Every Need

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.



## Inserts

Steel - Stud - Inch Table

| Part Number | Mounting Type | M - Thread | M1   | M2   | M3   | M4   | M5   | M6   | M9   | M8   | Size - Adjustable Handle |
|-------------|---------------|------------|------|------|------|------|------|------|------|------|--------------------------|
| 83672       | Stud          | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 2.36 | 1.18 | 0                        |
| 83673       | Stud          | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 2.36 | 1.57 | 0                        |
| 83674       | Stud          | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 2.36 | 1.77 | 0                        |
| 83675       | Stud          | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 2.36 | 1.96 | 0                        |
| 83676       | Stud          | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 2.36 | 2.36 | 0                        |
| 83677       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 0.78 | 1                        |
| 83678       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 1.18 | 1                        |
| 83679       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 1.57 | 1                        |
| 83680       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 1.77 | 1                        |
| 83681       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 1.96 | 1                        |
| 83682       | Stud          | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 2.36 | 1                        |
| 83683       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 0.78 | 2                        |
| 83684       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 1.18 | 2                        |
| 83685       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 1.57 | 2                        |
| 83686       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 1.77 | 2                        |
| 83687       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 1.96 | 2                        |
| 83688       | Stud          | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 3.90 | 2.36 | 2                        |
| 83689       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 2.17 | 3                        |
| 83690       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 1.18 | 3                        |
| 83691       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 1.57 | 3                        |
| 83692       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 2.17 | 3                        |
| 83693       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 2.36 | 3                        |
| 83694       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 2.36 | 4                        |
| 83695       | Stud          | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 4.65 | 2.36 | 4                        |

Dimensions in Inches



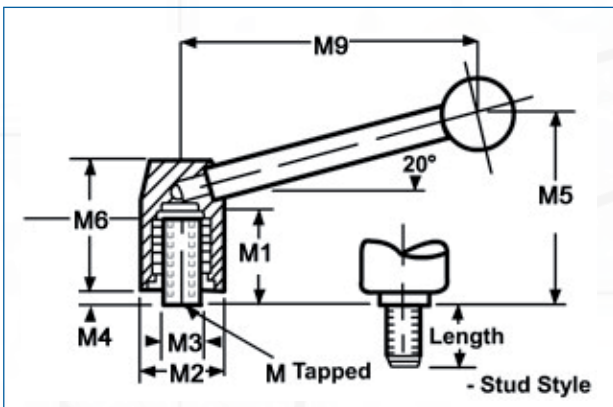
Solid Steel Heavy Duty Adjustable Lever is Made From Carbon Steel with High Quality Black Oxide Finish

Totally Enclosed Construction

Black Plastic Ball Knob on Handle End for a Beautiful finished appearance

5 Heavy Duty Sizes to Meet Every Need

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns handle to re-engage the splines for tightening or loosening.



## Inserts

Steel - Tapped - Inch Table

| Part Number | Mounting Type | Insert Material | Handle Material | M - Thread | M1   | M2   | M3   | M4   | M5   | M6   | M9   | Size - Adjustable Handle |
|-------------|---------------|-----------------|-----------------|------------|------|------|------|------|------|------|------|--------------------------|
| 83696       | Tapped        | Steel           | Steel           | 1/4-20     | 0.90 | 0.94 | 0.67 | 0.15 | 2.36 | 1.58 | 2.52 | 0                        |
| 83697       | Tapped        | Steel           | Steel           | 5/16-18    | 0.90 | 0.94 | 0.67 | 0.15 | 2.36 | 1.58 | 2.52 | 0                        |
| 83698       | Tapped        | Steel           | Steel           | 3/8-16     | 0.90 | 0.94 | 0.67 | 0.15 | 2.52 | 1.58 | 3.19 | 1                        |
| 83699       | Tapped        | Steel           | Steel           | 1/2-13     | 1.03 | 1.10 | 0.78 | 0.19 | 2.99 | 1.81 | 3.90 | 2                        |
| 83700       | Tapped        | Steel           | Steel           | 1/2-13     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 4.65 | 3                        |
| 83701       | Tapped        | Steel           | Steel           | 5/8-11     | 1.15 | 1.30 | 0.94 | 0.19 | 3.43 | 2.04 | 4.65 | 3                        |
| 83702       | Tapped        | Steel           | Steel           | 5/8-11     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 5.35 | 4                        |
| 83703       | Tapped        | Steel           | Steel           | 3/4-10     | 1.37 | 1.62 | 1.18 | 0.23 | 3.94 | 2.40 | 5.35 | 4                        |

Dimensions in Inches

## Quick-Acting Knobs

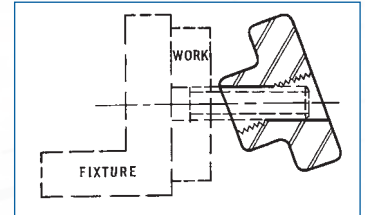
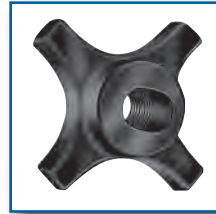
| Part No. | Thread Size | A     | B     | C     | D    | Net lbs Per 100 |
|----------|-------------|-------|-------|-------|------|-----------------|
| 28101    | 1/4-20      | 1-1/8 | 9/16  | 5/8   | 5/16 | 6               |
| 28102    | 5/16-18     | 1-1/2 | 11/16 | 7/8   | 3/8  | 11              |
| 28103    | 3/8-16      | 2     | 13/16 | 1     | 1/2  | 22              |
| 28104    | 1/2-13      | 2-1/2 | 1     | 1-18  | 9/16 | 33              |
| 28105    | 5/8-11      | 3     | 1-1/4 | 1-1/4 | 5/8  | 58              |
| 28106    | 3/4-10      | 3     | 1-1/4 | 1-1/4 | 5/8  | 50              |
| Metric   |             |       |       |       |      |                 |
| 28201    | M6 x 1/0    | 30    | 14    | 16    | 8    | 6               |
| 28202    | M8 x 1.25   | 38    | 17    | 22    | 10   | 11              |
| 28203    | M10 x 1.5   | 50    | 21    | 25    | 13   | 22              |
| 28204    | M12 x 1.75  | 64    | 25    | 30    | 14   | 33              |
| 28205    | M16 x 2.0   | 76    | 32    | 32    | 16   | 58              |

These knobs are not poorly threaded or rejects. This unique design allows them to perform their function.

Saves time where knob must be completely removed from stud member.

These steel knobs are excellent for fast clamping. The oblong hole lets you tilt and slide the knob onto a stud. For clamping action, simply straighten the knob, turn clockwise and the threads will engage. To remove knob, tilt and slide off.

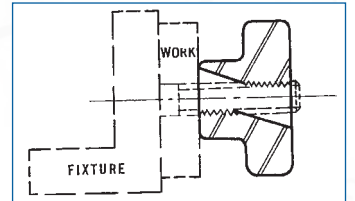
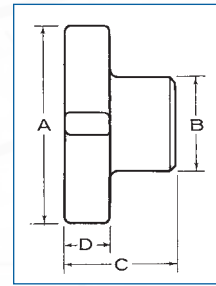
Not suitable for vibrating equipment.



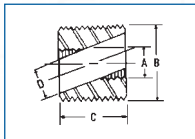
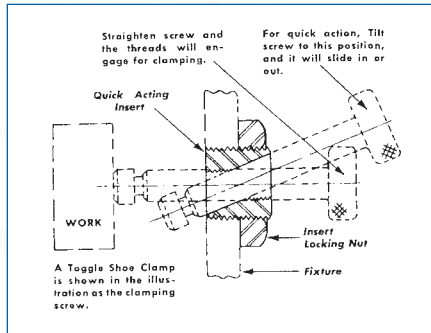
Tilt knob and it will slide in and out.

## Quick-Acting Inserts

| Part No. | A       | B         | C     | D     | Net lbs Per 100 |
|----------|---------|-----------|-------|-------|-----------------|
| 26001    | 1/4-20  | 1/2-20    | 1/2   | 17/64 | 1-1/2           |
| 26002    | 5/16-18 | 5/8-18    | 5/8   | 21/64 | 3-1/4           |
| 26003    | 3/8-16  | 3/4-16    | 3/4   | 25/64 | 5-1/2           |
| 26004    | 1/2-13  | 1-14      | 1     | 33/64 | 14              |
| 26005    | 5/8-11  | 1-1/4-1/2 | 1-1/4 | 41/64 | 27              |



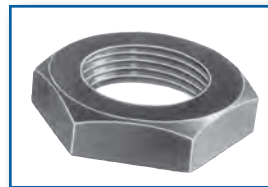
Straighten knob and threads will engage for clamping.



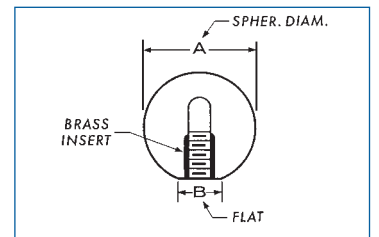
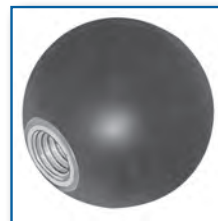
A Taggle Shoe Clamp is shown in the illustration as the clamping screw.

## Insert Locking Nuts

| Part No. | Use With | Thread Size | Hex Size | Thickness | Net lbs Per 100 |
|----------|----------|-------------|----------|-----------|-----------------|
| 27001    | 26001    | 1/2-20      | 1/2      | 17/64     | 1-1/2           |
| 27002    | 26002    | 5/8-18      | 5/8      | 21/64     | 3-1/4           |
| 27003    | 26003    | 3/4-16      | 3/4      | 25/64     | 5-1/2           |
| 27004    | 26004    | 1-14        | 1        | 33/64     | 14              |
| 27005    | 26005    | 1-1/4-12    | 1-1/4    | 41/64     | 27              |



Heat Treated Steel  
Black Oxide Finish



### \*Molded Thread

These phenolic knobs have a smooth, hard, glossy surface. The material is resistant to electricity, water, oils and most common chemicals.

## Plastic Ball Knobs

| Part No. | Ref. No. | Thread Size and Depth | A Diam. | B Flat | Net lbs Per 100 |
|----------|----------|-----------------------|---------|--------|-----------------|
| 23001    | PBK-15   | 10-32 x 5/16          | 3/4     | 3/8    | 2               |
| 23002    | PBK-25   | 1/4-20 x 7/16         | 1       | 1/2    | 3               |
| 23003    | PBK-26   | 1/4-28 x 7/16         | 1       | 1/2    | 3               |
| 23004    | PBK-27   | 5/16-18 - 7/16        | 1       | 1/2    | 3               |
| 23005    | PBK-28   | 5/16-24 x 7/16        | 1       | 1/2    | 3               |
| 23006    | PBK-45   | 3/8-16 x 1/2          | 1-3/8   | 5/8    | 7               |
| 23007    | PBK-46   | 3/8-24 x 1/2          | 1-3/8   | 5/8    | 7               |
| 23008    | PBK-47   | 1/2-13 x 5/8          | 1-3/8   | 5/8    | 8               |
| 23009    | PBK-48   | 1/2-20 x 5/8          | 1-3/8   | 5/8    | 8               |
| 23010    | PBK-65   | 1/2-13 x 5/8          | 1-7/8   | 3/4    | 18              |
| 23011    | PBK-66   | 1/2-20 x 5/8          | 1-7/8   | 3/4    | 18              |
| 23012    | PBK-67   | *5/8-18 x 3/4         | 1-7/8   | 3/4    | 15              |

**Hexagon Type**



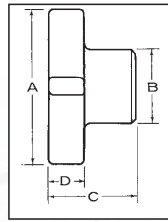
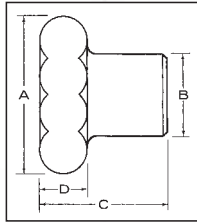
**Star Type**



Faces of reamed and tapped knobs are square to the hole. Special reaming, tapping and machining available.

Smooth finish ensures hand comfort even after repeated use.

Heat Treated Steel Black Oxide Finish



## Steel Hand Knobs

Reamed and Tapped Knobs Have a Black Finish (Blank Knobs are Centered)

| Type    | Blank    |         |              | Tapped   |             |              |              | Reamed   |           |            | Outside Dimensions |       |       |       |      |
|---------|----------|---------|--------------|----------|-------------|--------------|--------------|----------|-----------|------------|--------------------|-------|-------|-------|------|
|         | Part No. | Ref No. | lbs. per 100 | Part No. | Thread Size | Thread Depth | lbs. per 100 | Part No. | Hole Size | Hole Depth | lbs. per 100       | A     | B     | C     | D    |
| Star    | *17301   | HK-1    | 7            | 17501    | 1/4-20      | Thru         | 6            | 17401    | 1/4       | Thru       | 6                  | 1-1/8 | 9/16  | 5/8   | 5/16 |
| Star    |          |         |              | *17502   | 1/4-20      | 7/16         | 6            | *17402   | 1/4       | 7/16       | 6                  | 1-1/8 | 9/16  | 5/8   | 5/16 |
| Star    | *17302   | HK-2    | 12           | 17503    | 5/16-18     | Thru         | 10           | 17403    | 5/16      | Thru       | 10                 | 1-1/2 | 11/16 | 7/8   | 3/8  |
| Star    |          |         |              | *17504   | 5/16-18     | 5/8          | 11           | *17404   | 5/16      | 5/8        | 10                 | 1-1/2 | 11/16 | 7/8   | 3/8  |
| Star    | *17303   | HK-3    | 22           | 17505    | 3/8-16      | Thru         | 19           | 17405    | 3/8       | Thru       | 19                 | 2     | 13/16 | 1     | 1/2  |
| Star    | *17304   | HK-30   | 23           | *17506   | 3/8-16      | 3/4          | 21           | *17406   | 3/8       | 3/4        | 20                 | 2     | 13/16 | 1-1/8 | 1/2  |
| Star    | *17305   | HK-4    | 34           | 17507    | 1/2-13      | Thru         | 30           | 17407    | 1/2       | Thru       | 29                 | 2-1/2 | 1     | 1-1/8 | 9/16 |
| Star    | *17306   | HK-40   | 39           | *17508   | 1/2-13      | 1            | 35           | *17408   | 1/2       | 1          | 35                 | 2-1/2 | 1     | 1-1/2 | 9/16 |
| Star    |          |         |              | *17509   | 5/8-11      | 1            | 33           | *17409   | 5/8       | 1          | 34                 | 2-1/2 | 1     | 1-1/2 | 9/16 |
| Star    | *17307   | HK-5    | 61           | 17510    | 5/8-11      | Thru         | 54           | 17410    | 5/8       | Thru       | 52                 | 3     | 1-1/4 | 1-1/4 | 5/8  |
| Star    | *17308   | HK-50   | 72           | *17511   | 5/8-11      | 1-1/8        | 65           | *17411   | 5/8       | 1-1/8      | 64                 | 3     | 1-1/4 | 1-3/4 | 5/8  |
| Star    |          |         | 38           | *17512   | 3/4-10      | 1-1/8        | 62           | *17412   | 3/4       | 1-1/8      | 61                 | 3     | 1-1/4 | 1-3/4 | 5/8  |
| Hexagon | 17309    | HK-6    | 61           | 17513    | 3/8-16      | 1-1/8        | 35           | 17413    | 3/8       | 1-1/8      | 35                 | 2     | 7/8   | 1-5/8 | 3/8  |
| Hexagon | 17310    | HK-7    | 97           | 17514    | 1/2-13      | 1-1/8        | 57           | 17414    | 1/2       | 1-1/8      | 57                 | 2-1/2 | 1     | 1-7/8 | 7/16 |
| Hexagon | 17311    | HK-8    |              | 17515    | 5/8-11      | 1-1/8        | 92           | 17415    | 5/8       | 1-1/8      | 91                 | 3     | 1-1/4 | 2     | 1/2  |
| Hexagon |          |         |              | 17516    | 3/4-10      | 1-1/8        | 88           | 17416    | 3/4       | 1-1/8      | 87                 | 3     | 1-1/4 | 2     | 1/2  |

Dimensions in Inches

\* Conforms to TCMAI Standards

## Aluminum Hand Knobs

### SAE 319 - ASTM - SC64 C (Blank Knobs are Centered)

| Type    | Blank    |         |              | Tapped   |             |              |              | Reamed   |           |            | Outside Dimensions |       |       |       |      |
|---------|----------|---------|--------------|----------|-------------|--------------|--------------|----------|-----------|------------|--------------------|-------|-------|-------|------|
| Type    | Part No. | Ref No. | lbs. per 100 | Part No. | Thread Size | Thread Depth | lbs. per 100 | Part No. | Hole Size | Hole Depth | lbs. per 100       | A     | B     | C     | D    |
| Star    | *17001   | AHK-1   | 3            | 17201    | 1/4-20      | Thru         | 3            | 17101    | 1/4       | Thru       | 3                  | 1-1/8 | 9/16  | 5/8   | 5/16 |
| Star    |          |         |              | *17202   | 1/4-20      | 7/16         | 3            | *17102   | 1/4       | 7/16       | 3                  | 1-1/8 | 9/16  | 5/8   | 5/16 |
| Star    | *17002   | AHK-2   | 5            | 17203    | 5/16-18     | Thru         | 5            | 17103    | 5/16      | Thru       | 5                  | 1-1/2 | 11/16 | 7/8   | 3/8  |
| Star    |          |         |              | *17204   | 5/16-18     | 5/8          | 5            | *17104   | 5/16      | 5/8        | 5                  | 1-1/2 | 11/16 | 7/8   | 3/8  |
| Star    | *17003   | AHK-3   | 10           | 17205    | 3/8-16      | Thru         | 9            | 17105    | 3/8       | Thru       | 9                  | 2     | 13/16 | 1     | 1/2  |
| Star    | *17004   | AHK-30  | 10           | *17206   | 3/8-16      | 3/4          | 9            | *17106   | 3/8       | 3/4        | 9                  | 2     | 13/16 | 1-1/8 | 1/2  |
| Star    | *17005   | AHK-4   | 15           | 17207    | 1/2-13      | Thru         | 13           | 17107    | 1/2       | Thru       | 13                 | 2-1/2 | 1     | 1-1/8 | 9/16 |
| Star    | *17006   | AHK-40  | 20           | *17208   | 1/2-13      | 1            | 18           | *17108   | 1/2       | 1          | 18                 | 2-1/2 | 1     | 1-1/2 | 9/16 |
| Star    |          |         |              | *17209   | 5/8-11      | 1            | 17           | *17109   | 5/8       | 1          | 17                 | 2-1/2 | 1     | 1-1/2 | 9/16 |
| Star    | *17007   | AHK-5   | 26           | 17210    | 5/8-11      | Thru         | 23           | 17110    | 5/8       | Thru       | 23                 | 3     | 1-1/4 | 1-1/4 | 5/8  |
| Star    | *17008   | AHK-50  | 30           | *17211   | 5/8-11      | 1-1/8        | 27           | *17111   | 5/8       | 1-1/8      | 27                 | 3     | 1-1/4 | 1-3/4 | 5/8  |
| Star    |          |         |              | *17212   | 3/4-10      | 1-1/8        | 25           | *17112   | 3/4       | 1-1/8      | 25                 | 3     | 1-1/4 | 1-3/4 | 5/8  |
| Hexagon | 17009    | AHK-6   | 17           | 17213    | 3/8-16      | 1-1/8        | 16           | 17113    | 3/8       | 1-1/8      | 15                 | 2     | 7/8   | 1-5/8 | 3/8  |
| Hexagon | 17010    | AHK-7   | 26           | 17214    | 1/2-13      | 1-1/8        | 25           | 17114    | 1/2       | 1-1/8      | 24                 | 2-1/2 | 1     | 1-7/8 | 7/16 |
| Hexagon | 17011    | AHK-8   | 43           | 17215    | 5/8-11      | 1-1/8        | 40           | 17115    | 5/8       | 1-1/8      | 39                 | 3     | 1-1/4 | 2     | 1/2  |
| Hexagon |          |         |              | 17216    | 3/4-10      | 1-1/8        | 38           | 17116    | 3/4       | 1-1/8      | 37                 | 3     | 1-1/4 | 2     | 1/2  |

Dimensions in Inches

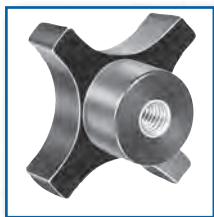
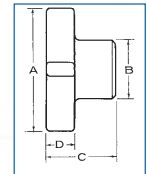
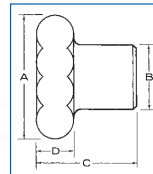
\* Conforms to TCMAI Standards

Faces of reamed and tapped knobs are square to the hole. Special reaming, tapping and machining available.

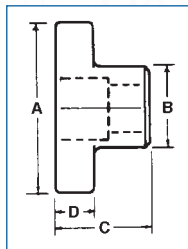
Star Type



Hexagon Type



Thru Hole



These phenolic knobs have a smooth, hard, glossy surface. The material is resistant to electricity, water, oils and most common chemicals.

## Plastic Hand Knobs

### With Tapped Brass Inserts

| Part No. | Thread  | Thread Length | A     | B     | C     | D    | Net lbs Per 100 |
|----------|---------|---------------|-------|-------|-------|------|-----------------|
| 23101    | 1/4-20  | 3/8           | 1-1/4 | 5/8   | 7/8   | 1/2  | 4               |
| 23102    | 5/16-18 | 3/8           | 1-1/4 | 5/8   | 7/8   | 1/2  | 4               |
| 23103    | 5/16-18 | 1/2           | 1-3/4 | 13/16 | 1     | 1/2  | 5               |
| 23104    | 3/8-16  | 1/2           | 1-3/4 | 13/16 | 1     | 1/2  | 5               |
| 23105    | 3/8-16  | 9/16          | 2-1/4 | 1     | 1-1/8 | 9/16 | 7               |
| 23106    | 1/2-13  | 9/16          | 2-1/4 | 1     | 1-1/8 | 9/16 | 7               |

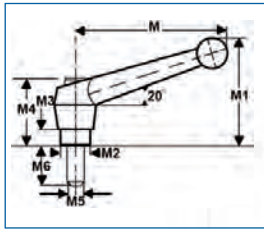
Dimensions in Inches

# Ball Style Adjustable Handles - Inch Style - With Stud

Stud, Screw & Spring are 303 Stainless Steel.

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

Instantly Adjustable to 20-45 Different Handle Positions Depending on Size.



Zinc Die Cast



Solid Stainless Steel



Zinc Die Cast W/ S.S. Insert

## Ball Style Adjustable Handles

### Inch Style - With Stud

| Part Numbers  |           | Zinc Die Cast w/SS Insert | Size (Inch) | M    | M1  | M2  | M3  | M4  | M5 (Thread) | M6 (Length) |
|---------------|-----------|---------------------------|-------------|------|-----|-----|-----|-----|-------------|-------------|
| Zinc Die Cast | Stainless |                           |             |      |     |     |     |     |             |             |
| 82145         | 82201     | 82237                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-32       | .39         |
| 82146         | 82202     | 82238                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-32       | .59         |
| 82147         | 82203     | 82239                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-32       | .78         |
| 82148         | 82204     | 82240                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-32       | 1.18        |
| 82149         | 82205     | 82241                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-24       | .39         |
| 82150         | 82206     | 82242                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-24       | .59         |
| 82151         | 82207     | 82243                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-24       | .48         |
| 82152         | 82208     | 82244                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 10-24       | 1.18        |
| 82153         | 82209     | 82245                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | .39         |
| 82154         | 82210     | 82246                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | .59         |
| 82155         | 82211     | 82247                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | .78         |
| 82156         | 82212     | 82248                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | 1.18        |
| 82157         | 82213     | 82249                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | 1.57        |
| 82158         | 82214     | 82250                     | 1           | 1.57 | 1.3 | .39 | .15 | .95 | 1/4-20      | 1.77        |
| 82159         | 82215     | 82251                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | .59         |
| 82160         | 82216     | 82252                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | .78         |
| 82161         | 82217     | 82253                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | 1.18        |
| 82162         | 82218     | 82254                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | 1.57        |
| 82163         | 82219     | 82255                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | 1.77        |
| 82164         | 82220     | 82256                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | 1.96        |
| 82165         | 82221     | 82257                     | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 5/16-18     | 2.36        |
| 82166         | -         | -                         | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 3/8-16      | .59         |
| 82167         | -         | -                         | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 3/8-16      | .78         |
| 82168         | -         | -                         | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 3/8-16      | 1.18        |
| 82169         | -         | -                         | 2           | 2.6  | 1.8 | .50 | .30 | 1.1 | 3/8-16      | 1.57        |

Dimensions in Inches

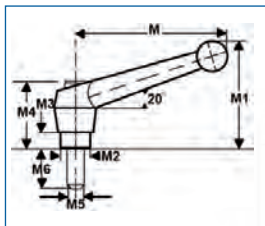
**Continued on the Next Page**



Stud, Screw & Spring are 303 Stainless Steel.

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

Instantly Adjustable to 20-45 Different Handle Positions Depending on Size.



Zinc Die Cast



Solid Stainless Steel



Zinc Die Cast W/ S.S. Insert

## Ball Style Adjustable Handles - Con't

| Inch Style - With Stud |           |                           |             |      |      |     |     |      |             |             |
|------------------------|-----------|---------------------------|-------------|------|------|-----|-----|------|-------------|-------------|
| Part Numbers           |           | Zinc Die Cast w/SS Insert | Size (Inch) | M    | M1   | M2  | M3  | M4   | M5 (Thread) | M6 (Length) |
| Zinc Die Cast          | Stainless |                           |             |      |      |     |     |      |             |             |
| 82170                  | -         | -                         | 2           | 2.6  | 1.8  | .50 | .30 | 2.1  | 3/8-16      | 1.77        |
| 82171                  | -         | -                         | 2           | 2.6  | 1.8  | .50 | .30 | 2.1  | 3/8-16      | 1.96        |
| 82172                  | -         | -                         | 2           | 2.6  | 1.8  | .50 | .30 | 2.1  | 3/8-16      | 2.36        |
| 82173                  | 82222     | 82258                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | .59         |
| 82174                  | 82223     | 82259                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | .78         |
| 82175                  | 82224     | 82260                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | 1.18        |
| 82176                  | 82225     | 82261                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | 1.57        |
| 82177                  | 82226     | 82262                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | 1.77        |
| 82178                  | 82227     | 82263                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | 1.96        |
| 82179                  | 82228     | 82264                     | 3           | 3.15 | 2.28 | .62 | .39 | 1.47 | 3/8-16      | 2.36        |
| 82180                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | .59         |
| 82181                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | .78         |
| 82182                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | 1.18        |
| 82183                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | 1.57        |
| 82184                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | 1.77        |
| 82185                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | 1.96        |
| 82186                  | -         | -                         | 4           | 3.74 | 2.63 | .62 | .39 | 1.68 | 3/8-16      | 2.36        |
| 82187                  | 82229     | 82265                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | .59         |
| 82188                  | 82230     | 82266                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | .78         |
| 82189                  | 82231     | 82267                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 1.18        |
| 82190                  | 82232     | 82268                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 1.38        |
| 82191                  | 82233     | 82269                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 1.57        |
| 82192                  | 82234     | 82270                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 1.77        |
| 82193                  | 82235     | 82271                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 1.96        |
| 82194                  | 82236     | 82272                     | 4           | 3.74 | 2.63 | .75 | .39 | 1.68 | 1/2-13      | 2.36        |
| 82195                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 1/2-13      | .98         |
| 82196                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 1/2-13      | 1.57        |
| 82197                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 1/2-13      | 1.97        |
| 82198                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 1/2-13      | 2.36        |
| 82199                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 5/8-11      | 1.57        |
| 82200                  | -         | -                         | 5           | 4.33 | 3.11 | .90 | .47 | 2    | 5/8-11      | 2.36        |

Dimensions in Inches

## Ball Style Adjustable Handles

| Inch Style - Blank, Tapped and Reamed |           |                           |             |            |     |     |     |     |      |      |      |
|---------------------------------------|-----------|---------------------------|-------------|------------|-----|-----|-----|-----|------|------|------|
| Part Numbers                          |           | Zinc Die Cast w/SS Insert | Size (Inch) | M          | M1  | M2  | M3  | M4  | M5   | M6   | M7   |
| Zinc Die Cast                         | Stainless |                           |             |            |     |     |     |     |      |      |      |
| 82273                                 | 82298     | 82318                     | 1           | Blank      | .35 | .53 | .39 | .15 | 1.3  | .95  | 1.57 |
| 82274                                 | 82299     | 82319                     | 1           | 10-24 Tap  | .35 | .53 | .39 | .15 | 1.3  | .95  | 1.57 |
| 82275                                 | 82300     | 82320                     | 1           | 1/4-20 Tap | .35 | .53 | .39 | .15 | 1.3  | .95  | 1.57 |
| 82276                                 | 82301     | 82321                     | 1           | 1/4 Ream   | .35 | .53 | .39 | .15 | 1.3  | .95  | 1.57 |
| 82277                                 | 82302     | 82322                     | 1           | 10-32 Tap  | .35 | .53 | .39 | .15 | 1.3  | .95  | 1.57 |
| 82278                                 | 82303     | 82323                     | 2           | Blank      | .47 | .71 | .53 | .25 | 1.81 | 1.14 | 2.56 |
| 82279                                 | 82304     | 82324                     | 2           | 10-24 Tap  | .47 | .71 | .53 | .25 | 1.81 | 1.14 | 2.56 |
| 82280                                 | 82305     | 82325                     | 2           | 1/4-20 Tap | .47 | .71 | .53 | .25 | 1.81 | 1.14 | 2.56 |
| 82281                                 | 82306     | 82326                     | 2           | 1/4 Ream   | .47 | .71 | .53 | .25 | 1.81 | 1.14 | 2.56 |
| 82282                                 | 82307     | 82327                     | 2           | 10-32 Tap  | .47 | .71 | .53 | .25 | 1.81 | 1.14 | 2.56 |
| 82283                                 | 82308     | 82328                     | 3           | Blank      | .55 | .84 | .62 | .39 | 2.28 | 1.47 | 3.15 |
| 82284                                 | 82309     | 82329                     | 3           | 10-24 Tap  | .55 | .84 | .62 | .39 | 2.28 | 1.47 | 3.15 |
| 82285                                 | 82310     | 82330                     | 3           | 1/4-20 Tap | .55 | .84 | .62 | .39 | 2.28 | 1.47 | 3.15 |
| 82286                                 | 82311     | 82331                     | 3           | 1/4 Ream   | .55 | .84 | .62 | .39 | 2.28 | 1.47 | 3.15 |
| 82287                                 | 82312     | 82332                     | 3           | 10-32 Tap  | .55 | .84 | .62 | .39 | 2.28 | 1.47 | 3.15 |
| 82288                                 | 82313     | 82333                     | 4           | Blank      | .67 | 1   | .75 | .39 | 2.63 | 1.68 | 3.74 |
| 82289                                 | 82314     | 82334                     | 4           | 10-24 Tap  | .67 | 1   | .75 | .39 | 2.63 | 1.68 | 3.74 |
| 82290                                 | 82315     | 82335                     | 4           | 1/4-20 Tap | .67 | 1   | .75 | .39 | 2.63 | 1.68 | 3.74 |
| 82291                                 | 82316     | 82336                     | 4           | 1/4 Ream   | .67 | 1   | .75 | .39 | 2.63 | 1.68 | 3.74 |
| 82292                                 | 82317     | 82337                     | 4           | 10-32 Tap  | .67 | 1   | .75 | .39 | 2.63 | 1.68 | 3.74 |
| 82293                                 | -         | -                         | 5           | Blank      | .90 | 1.2 | .90 | .47 | 3.11 | 2    | 4.33 |
| 82294                                 | -         | -                         | 5           | 10-24 Tap  | .90 | 1.2 | .90 | .47 | 3.11 | 2    | 4.33 |
| 82295                                 | -         | -                         | 5           | 1/4-20 Tap | .90 | 1.2 | .90 | .47 | 3.11 | 2    | 4.33 |
| 82296                                 | -         | -                         | 5           | 1/4 Ream   | .90 | 1.2 | .90 | .47 | 3.11 | 2    | 4.33 |
| 82297                                 | -         | -                         | 5           | 10-32 Tap  | .90 | 1.2 | .90 | .47 | 3.11 | 2    | 4.33 |

Dimensions in Inches

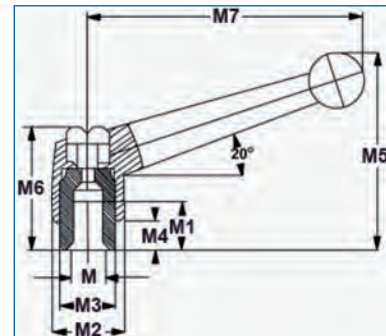
**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

**Zinc Die Cast:**

Handle Material is Diecast Zinc  
 Smooth, Comfortable, Ball Style Design with Beautiful Black Gloss Powder Coated Finish  
 Insert, Screw & Spring are Made from 303 Stainless Steel  
 Instantly Adjustable to 20-45 Different Handle Positions Depending on Size  
 Handle Color is Black.

**Stainless Steel:**

100% Stainless Steel  
 Handle is made from Solid 303 Stainless Steel & Completely Cavity Free  
 Stud, Screw & Spring are Made from 303 Stainless Steel  
 Smooth, Bright Finish  
 Strong yet Attractive



**The ideal handle solution for the following industries:** Medical, Food, Chemical, Pharmaceutical, Marine



Zinc Die Cast



Solid Stainless Steel



Zinc Die Cast w/ S.S. Insert

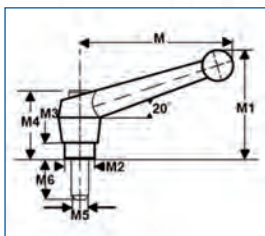
## Modern Style Adjustable Handles



Zinc & Plastic



Zinc & Plastic W/ SS. Insert



| Inch Style - With Stud |         |                   |                      |      |      |     |     |      |             |             |
|------------------------|---------|-------------------|----------------------|------|------|-----|-----|------|-------------|-------------|
| Part Numbers           |         |                   |                      | M    | M1   | M2  | M3  | M4   | M5 (Thread) | M6 (Length) |
| Zinc                   | Plastic | Zinc w/ SS Insert | Plastic w/ SS Insert |      |      |     |     |      |             |             |
| 82338                  | 82394   | 82444             | 82480                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .39         |
| 82339                  | 82395   | 82445             | 82481                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .59         |
| 82340                  | 82396   | 82446             | 82482                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .78         |
| 82341                  | 82397   | 82447             | 82483                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | 1.18        |
| 82342                  | 82398   | 82448             | 82484                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .39         |
| 82343                  | 82399   | 82449             | 82485                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .59         |
| 82344                  | 82400   | 82450             | 82486                | 1.57 | 1.22 | .39 | .15 | .95  | 10-32       | .78         |
| 82345                  | 82401   | 82451             | 82487                | 1.57 | 1.22 | .39 | .15 | .95  | 10-24       | 1.18        |
| 82346                  | 82402   | 82452             | 82488                | 1.57 | 1.22 | .39 | .15 | .95  | 10-25       | .39         |
| 82347                  | 82403   | 82453             | 82489                | 1.57 | 1.22 | .39 | .15 | .95  | 10-26       | .59         |
| 82348                  | 82404   | 82454             | 82490                | 1.57 | 1.22 | .39 | .15 | .95  | 10-27       | .78         |
| 82349                  | 82405   | 82455             | 82491                | 1.57 | 1.22 | .39 | .15 | .95  | 10-28       | 1.18        |
| 82350                  | 82406   | 82456             | 82492                | 1.57 | 1.22 | .39 | .15 | .95  | 10-29       | 1.57        |
| 82351                  | 82407   | 82457             | 82493                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | 1.77        |
| 82352                  | 82408   | 82458             | 82494                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | .59         |
| 82353                  | 82409   | 82459             | 82495                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | .78         |
| 82354                  | 82410   | 82460             | 82496                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | 1.18        |
| 82355                  | 82411   | 82461             | 82497                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | 1.57        |
| 82356                  | 82412   | 82462             | 82498                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | 1.77        |
| 82357                  | 82413   | 82463             | 82499                | 1.57 | 1.22 | .39 | .15 | .95  | 1/4-20      | 1.96        |
| 82358                  | 82414   | 82464             | 82500                | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | 2.36        |
| 82359                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | .59         |
| 82360                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | .78         |
| 82361                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | 1.18        |
| 82362                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | 1.57        |
| 82363                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | 1.77        |
| 82364                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 5/16-18     | 1.96        |
| 82365                  | -       | -                 |                      | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | 2.36        |

Dimensions in Inches

**Continued on the Next Page**

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

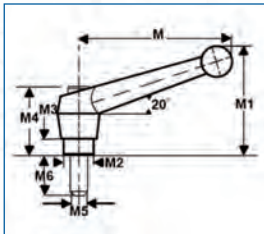
Instantly Adjustable to 20-45 Different Handle Positions Depending on Size. Stud Machined from Solid Bar. Plastic Handles have a Molded in Metal Spline Insert.



Zinc & Plastic



Zinc & Plastic W/ SS. Insert



## Modern Style Adjustable Handles - Con't

| Inch Style - With Stud |         |                   |                      |      |      |     |     |      |             |             |
|------------------------|---------|-------------------|----------------------|------|------|-----|-----|------|-------------|-------------|
| Part Numbers           |         |                   |                      | M    | M1   | M2  | M3  | M4   | M5 (Thread) | M6 (Length) |
| Zinc                   | Plastic | Zinc w/ SS Insert | Plastic w/ SS Insert |      |      |     |     |      |             |             |
| 82366                  | 82422   | 82465             | 82501                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | .59         |
| 82367                  | 82423   | 82466             | 82502                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | .78         |
| 82368                  | 82424   | 82467             | 82503                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | 1.18        |
| 82369                  | 82425   | 82468             | 82504                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | 1.57        |
| 82370                  | 82426   | 82469             | 82505                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | 1.77        |
| 82371                  | 82427   | 82470             | 82506                | 2.56 | 1.69 | .53 | .25 | 1.14 | 3/8-16      | 1.96        |
| 82372                  | 82428   | 82471             | 82507                | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | 2.36        |
| 82373                  | 82429   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | .59         |
| 82374                  | 82430   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | .78         |
| 82375                  | 82431   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | 1.18        |
| 82376                  | 82432   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | 1.57        |
| 82377                  | 82433   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | 1.77        |
| 82378                  | 82434   | -                 | -                    | 3.15 | 2.16 | .62 | .39 | 1.47 | 3/8-16      | 1.96        |
| 82379                  | 82435   | -                 | -                    | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 2.36        |
| 82380                  | 82436   | 82472             | 82508                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | .59         |
| 82381                  | 82437   | 82473             | 82509                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | .78         |
| 82382                  | 82438   | 82474             | 82510                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.18        |
| 82383                  | 82439   | 82475             | 82511                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.38        |
| 82384                  | 82440   | 82476             | 82512                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.57        |
| 82385                  | 82441   | 82477             | 82513                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.77        |
| 82386                  | 82442   | 82478             | 82514                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.96        |
| 82387                  | 82433   | 82479             | 82515                | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 2.36        |
| 82388                  | -       | -                 | -                    | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | .98         |
| 82389                  | -       | -                 | -                    | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.57        |
| 82390                  | -       | -                 | -                    | 3.74 | 2.52 | .75 | .39 | 1.68 | 1/2-13      | 1.97        |
| 82391                  | -       | -                 | -                    | 4.33 | 2.95 | .90 | .47 | 2    | 1/2-13      | 2.36        |
| 82392                  | -       | -                 | -                    | 4.33 | 2.95 | .90 | .47 | 2    | 1/2-13      | 1.57        |
| 82393                  | -       | -                 | -                    | 4.33 | 2.95 | .90 | .47 | 2    | 5/8-11      | 2.36        |

Dimensions in Inches

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

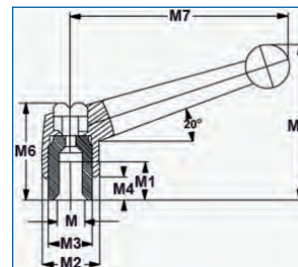
Instantly Adjustable to 20-45 Different Handle Positions Depending on Size. Stud Machined from Solid Bar. Plastic Handles have a Molded in Metal Spline Insert.



Zinc & Plastic



Zinc & Plastic W/ SS. Insert



## Modern Style Adjustable Handles

| Part Numbers |         |                   |                      | Size (Inch) | Inch Style - With Stud |     |     |     |     |      |      |      |  |
|--------------|---------|-------------------|----------------------|-------------|------------------------|-----|-----|-----|-----|------|------|------|--|
| Zinc         | Plastic | Zinc w/ SS Insert | Plastic w/ SS Insert |             | M                      | M1  | M2  | M3  | M4  | M5   | M6   | M7   |  |
| 82516        | 82541   | 82561             | 82581                | 1           | Blank                  | .35 | .53 | .39 | .15 | 1.22 | .95  | 1.57 |  |
| 82517        | 82542   | 82562             | 82582                | 1           | 10-24 Tap              | .35 | .53 | .39 | .15 | 1.22 | .95  | 1.57 |  |
| 82518        | 82543   | 82563             | 82583                | 1           | 1/4-20 Tap             | .35 | .53 | .39 | .15 | 1.22 | .95  | 1.57 |  |
| 82519        | 82544   | 82564             | 82584                | 1           | 1/4 Ream               | .35 | .53 | .39 | .15 | 1.22 | .95  | 1.57 |  |
| 82520        | 82545   | 82565             | 82585                | 1           | 10-32 Tap              | .35 | .53 | .39 | .15 | 1.22 | .95  | 1.57 |  |
| 82521        | 82546   | 82566             | 82586                | 1           | Blank                  | .47 | .71 | .53 | .25 | 1.69 | 1.14 | 2.56 |  |
| 82522        | 82547   | 82567             | 82587                | 1           | 1/4-20 Tap             | .47 | .71 | .53 | .25 | 1.69 | 1.14 | 2.56 |  |
| 82523        | 82548   | 82568             | 82588                | 1           | 5/16-18 Tap            | .47 | .71 | .53 | .25 | 1.69 | 1.14 | 2.56 |  |
| 82524        | 82549   | 82569             | 82589                | 1           | 1/4 Ream               | .47 | .71 | .53 | .25 | 1.69 | 1.14 | 2.56 |  |
| 82525        | 82550   | 82570             | 82590                | 2           | 5/16 Ream              | .47 | .71 | .53 | .25 | 1.69 | 1.14 | 2.56 |  |
| 82526        | 82551   | 82571             | 82591                | 2           | Blank                  | .55 | .84 | .62 | .39 | 2.16 | 1.47 | 3.15 |  |
| 82527        | 82552   | 82572             | 82592                | 2           | 5/16-18 Tap            | .55 | .84 | .62 | .39 | 2.16 | 1.47 | 3.15 |  |
| 82528        | 82553   | 82573             | 82593                | 2           | 3/8-16 Tap             | .55 | .84 | .62 | .39 | 2.16 | 1.47 | 3.15 |  |
| 82529        | 82554   | 82574             | 82594                | 2           | 5/16 Ream              | .55 | .84 | .62 | .39 | 2.16 | 1.47 | 3.15 |  |
| 82530        | 82555   | 82575             | 82595                | 3           | 3/8 Ream               | .55 | .84 | .62 | .39 | 2.16 | 1.47 | 3.15 |  |
| 82531        | 82556   | 82576             | 82596                | 3           | Blank                  | .67 | 1   | .75 | .39 | 2.52 | 1.68 | 3.74 |  |
| 82532        | 82557   | 82577             | 82597                | 3           | 3/8-16 Tap             | .67 | 1   | .75 | .39 | 2.52 | 1.68 | 3.74 |  |
| 82533        | 82558   | 82578             | 82598                | 3           | 1/2-13 Tap             | .67 | 1   | .75 | .39 | 2.52 | 1.68 | 3.74 |  |
| 82534        | 82559   | 82579             | 82599                | 3           | 3/8 Ream               | .67 | 1   | .75 | .39 | 2.52 | 1.68 | 3.74 |  |
| 82535        | 82560   | 82580             | 82600                | 4           | 1/2 Ream               | .67 | 1   | .75 | .39 | 2.52 | 1.68 | 3.74 |  |
| 82536        | -       | -                 | -                    | 4           | Blank                  | .90 | 1.2 | .90 | .47 | 2.95 | 2    | 4.33 |  |
| 82537        | -       | -                 | -                    | 4           | 1/2-13 Tap             | .90 | 1.2 | .90 | .47 | 2.95 | 2    | 4.33 |  |
| 82538        | -       | -                 | -                    | 4           | 5/8-11 Tap             | .90 | 1.2 | .90 | .47 | 2.95 | 2    | 4.33 |  |
| 82539        | -       | -                 | -                    | 4           | 1/2 Ream               | .90 | 1.2 | .90 | .47 | 2.95 | 2    | 4.33 |  |
| 82540        | -       | -                 | -                    | 5           | 5/8 Ream               | .90 | 1.2 | .90 | .47 | 2.95 | 2    | 4.33 |  |

Dimensions in Inches

**Lift & Release:** You are able to disengage the internal splines while the insert remains stationary, allowing you to rotate the handle to the desired position. The internal conical spring returns the handle to re-engage the splines for tightening or loosening.

Handle Material Available in Diecast Zinc or PA6 Thermoplastic  
 Stud, Screw & Spring Made From 303 Stainless Steel  
 Instantly Adjustable to 20-45 Different Handle Positions Depending on Size  
 Handle Color is Black. Orange Available as Special Order  
 Now available in 100% solid stainless steel version

A standard clamping lever that also has an adjustable feature. Five sizes to fit a wide range of applications.

Special tap/reams are also available on request.

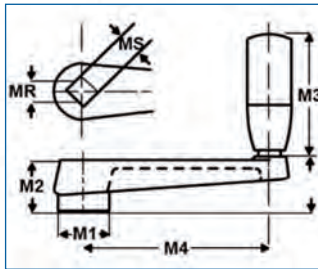
Fine Grained High Strength Aluminum

Black Powder Coated

Revolving Steel and Duroplast Handle

Hole for Handle is tapped in Crank for easy Removal or Insertion

Superior in Appearance and Workmanship



## Crank Handles - Revolving

### Aluminum Crank with Revolving Handle

| Part No. | Size (Inch) | MR Ream | MR Square | M1   | M2   | M3   | M4   |
|----------|-------------|---------|-----------|------|------|------|------|
| 82117    | 1           | 3/8     | -         | 0.9  | 0.94 | 1.97 | 3.15 |
| 82118    | 1           | -       | 3/8       | 0.9  | 0.94 | 1.97 | 3.15 |
| 82119    | 2           | 1/2     | -         | 1.05 | 1.1  | 2.56 | 3.93 |
| 82120    | 2           | -       | 1/2       | 1.05 | 1.1  | 2.56 | 3.93 |
| 82121    | 3           | 5/8     | -         | 1.25 | 1.34 | 3.15 | 4.92 |
| 82122    | 3           | -       | 5/8       | 1.25 | 1.34 | 3.15 | 4.92 |
| 82123    | 4           | 5/8     | -         | 1.38 | 1.5  | 3.15 | 6.3  |
| 82124    | 4           | -       | 5/8       | 1.38 | 1.5  | 3.15 | 6.3  |
| 82125    | 4           | 3/4     | -         | 1.38 | 1.5  | 3.15 | 6.3  |
| 82126    | 4           | -       | 3/4       | 1.38 | 1.5  | 3.15 | 6.3  |

### Metric - Revolving

| Part No. | Size (Inch) | MR Ream | MR Square | M1 | M2 | M3 | M4  |
|----------|-------------|---------|-----------|----|----|----|-----|
| 82127    | 1           | 10      | -         | 23 | 24 | 51 | 80  |
| 82128    | 1           | -       | 10        | 23 | 24 | 51 | 80  |
| 82129    | 2           | 12      | -         | 27 | 28 | 67 | 100 |
| 82130    | 2           | -       | 12        | 27 | 28 | 67 | 100 |
| 82131    | 3           | 14      | -         | 32 | 34 | 80 | 125 |
| 82132    | 3           | -       | 14        | 32 | 34 | 80 | 125 |

## Crank Handles - Fold Away

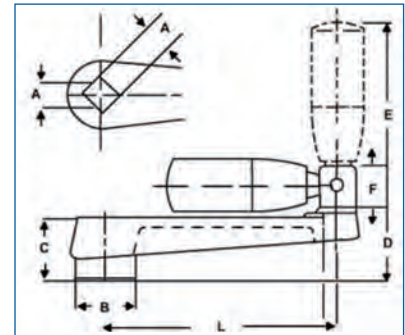
### Aluminum Crank with Revolving Handle

| Part No. | Size (Inch) | A Ream | A Square | B    | C    | D    | E    | F   | L    |
|----------|-------------|--------|----------|------|------|------|------|-----|------|
| 82133    | 2           | 1/2    | -        | 1.06 | 1.1  | 1.25 | 3.15 | .59 | 3.94 |
| 82134    | 2           | -      | 1/2      | 1.06 | 1.34 | 1.25 | 3.15 | .59 | 3.94 |
| 82135    | 3           | 5/8    | -        | 1.25 | 1.35 | 1.58 | 3.92 | .77 | 4.92 |
| 82136    | 3           | -      | 5/8      | 1.25 | 1.5  | 1.58 | 3.92 | .78 | 4.92 |
| 82137    | 4           | 5/8    | -        | 1.38 | 1.5  | 1.73 | 3.92 | .79 | 6.3  |
| 82138    | 4           | -      | 5/8      | 1.38 | 1.5  | 1.73 | 3.92 | .80 | 6.3  |
| 82139    | 4           | 3/4    | -        | 1.38 | 1.5  | 1.73 | 3.92 | .81 | 6.3  |
| 82140    | 4           | -      | 3/4      | 1.38 | 1.5  | 1.73 | 3.92 | .82 | 6.3  |



### Metric - Fold Away

| Part No. | Size (Inch) | A Ream | A Square | B    | C    | D    | E    | F   | L    |
|----------|-------------|--------|----------|------|------|------|------|-----|------|
| 82141    | 2           | 1/2    | -        | 1.06 | 1.1  | 1.25 | 3.15 | .59 | 3.94 |
| 82142    | 2           | -      | 1/2      | 1.06 | 1.34 | 1.25 | 3.15 | .59 | 3.94 |
| 82143    | 3           | 5/8    | -        | 1.25 | 1.35 | 1.58 | 3.92 | .77 | 4.92 |
| 82144    | 3           | -      | 5/8      | 1.25 | 1.5  | 1.58 | 3.92 | .78 | 4.92 |



Black Powder Coated Aluminum

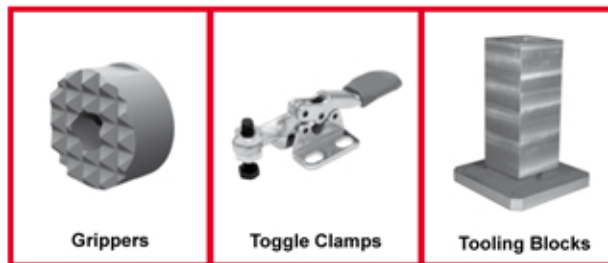
Manual Fold-A-Way Handle for Safety

To Engage Handle, Pull and it will snap into Position

To Disengage, Pull up Handle then Push toward Crank Axis

# Northwestern Tools, Inc.

## Family of Products



**Toll - Free Number  
800-236-3956**