

Belt Scales

Belt scales accessories

Milltronics MWL weight lifter

Overview



Milltronics MWL weight lifter is a mechanical calibration weight lifter for MCS, MSI, MMI, and MUS belt scales.

Benefits

- Safe and easy application of belt scale reference weights with the operator remaining external to the conveyor
- Modular construction, easily adaptable to different conveyor widths
- Low profile allowing easy fit into belt conveyor
- Easy to install and apply
- Easy to store drive handle that can be applied to left or right side of MWL
- Security pin used to ensure safe storage of weight
- Can be used with new and existing applications

Application

Milltronics MWL mechanically raises and lowers the static weights and then stores the weights securely above the belt scale calibration arms, and allows the operator to lower and apply them safely without having to lean into the conveyor. The MWL is manually operated, and uses a high mechanical advantage to enable weights up to 340 kg (750 lb) to be applied with very limited effort. The crank handle uses twelve rotations for full range of motion, and can be removed and stored for safety with the locking ball-pin which secures the MWL when it is not in use.

Two lifting arms support a base-bar weight above the calibration (test) weight brackets of the belt scale: either flat bar or round bar style calibration weights are applicable. Locating notches in the base-bar weight engage the calibration weights securely on the lifting arms in the stored position, and the gear drive locks the lifting arms in place.

Installation is easy, just four bolt holes to drill after locating the MWL gear modules (LH and RH) on the conveyor with respect to the belt scale. After running the MWL empty to ensure proper alignment, and then tightening mounting bolts, you are ready for the loading of the calibration weights. This is the last time that they will have to be lifted by hand.

The motorized option allows for local or remote calibration of belt scales. Proximity sensors mounted to the MWL provide indication of storage or application of the test weight(s). The optional control panel features local control and indication of calibration as well as interfaces for remote calibration through a control system.

Technical specifications

Milltronics MWL weight lifter	
Mode of operation	
Principle of operation	Mechanical gear drive
Typical application	Belt scale calibration
Medium conditions	
Max. ambient temperature	75 °C (167 °F)
Belt design	
Belt width	<ul style="list-style-type: none"> • MCS: up to 1 600 mm (60 inch) CEMA width • MUS-STD standard duty: up to 1 000 mm (42 inch) CEMA width • MUS-HD heavy-duty: up to 1 600 mm (60 inch) CEMA width • MSI: 18 ... 96 inch CEMA belt width
Conveyor incline	
	± 15° from horizontal
Idlers	
Idler spacing	20° or more troughed idlers
Calibration weight capacity	
	Up to 340 kg (750 lb)
Crank arm	
Mechanical advantage	20:1
Number of revolutions required for raising or lowering	12
Motorized (option)	
	Motor - 0.75 HP (0.55 kW) IP55, integral 24 V DC brake, insulation class F, 220 ... 240/380 ... 460 V AC 3 pH 50/60 Hz or 575 V AC 3 pH 60 Hz
Controller panel (option)	
	208 ... 240, 380 ... 420, 380 ... 480, 575 ... 600 V AC, Nema/Type 4, IP65
Mounting dimensions	
	See reverse for standard and heavy-duty MUS, MCS, and MSI/MMI belt scales
Approvals	
	The MWL is in compliance with directive 98/37/EC, CE, RCM
Motorized option	CE, RCM, CSA _{C/US}

Selection and ordering data	Article No.	Article No.	
Milltronics MWL weight lifter A mechanical calibration weight lifter for MSI, MMI, MCS, and MUS belt scale ¹⁾ For use with MSI, ensure MSI fabrication option 4 1 is selected. ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	7MH7218-	7MH7218-	
Actuation Manually Motorized 220... 240/380 ... 460 V AC 3 pH 50/60 Hz ²⁾ Motorized 575 V AC 3 pH 60 Hz ²⁾	1 2 3	Milltronics MWL weight lifter A mechanical calibration weight lifter for MSI, MMI, MCS, and MUS belt scale ¹⁾ For use with MSI, ensure MSI fabrication option 4 1 is selected. 63 inch, 'A' =72 inch (1 829 mm) 64 inch, 'A' =73 inch (1 854 mm) 65 inch, 'A' =74 inch (1 880 mm) 66 inch, 'A' =75 inch (1 905 mm) 67 inch, 'A' =76 inch (1 930 mm) 68 inch, 'A' =77 inch (1 956 mm) 69 inch, 'A' =78 inch (1 981 mm) 70 inch, 'A' =79 inch (2 007 mm) 71 inch, 'A' =80 inch (2 032 mm) 72 inch, 'A' =81 inch (2 057 mm) 73 inch, 'A' =82 inch (2 083 mm) 74 inch, 'A' =83 inch (2 108 mm) 75 inch, 'A' =84 inch (2 134 mm) 76 inch, 'A' =85 inch (2 159 mm) 77 inch, 'A' =86 inch (2 184 mm) 78 inch, 'A' =87 inch (2 210 mm) 79 inch, 'A' =88 inch (2 235 mm) 80 inch, 'A' =89 inch (2 261 mm) 81 inch, 'A' =90 inch (2 286 mm) 82 inch, 'A' =91 inch (2 311 mm) 83 inch, 'A' =92 inch (2 337 mm) 84 inch, 'A' =93 inch (2 362 mm) 85 inch, 'A' =94 inch (2 388 mm) 86 inch, 'A' =95 inch (2 413 mm) 87 inch, 'A' =96 inch (2 438 mm) 88 inch, 'A' =97 inch (2 464 mm) 89 inch, 'A' =98 inch (2 489 mm) 90 inch, 'A' =99 inch (2 515 mm) 91 inch, 'A' =100 inch (2 540 mm) 92 inch, 'A' =101 inch (2 565 mm) 93 inch, 'A' =102 inch (2 591 mm) 94 inch, 'A' =103 inch (2 616 mm) 95 inch, 'A' =104 inch (2 642 mm) 96 inch, 'A' =105 inch (2 667 mm) No width parts ³⁾	CD CE CF CG CH CJ CK CL CM CN CP CQ CR CS CT CU CV CW DA DB DC DD DE DF DG DH DJ DK DL DM DN DP DQ DR XX
Belt width and 'A' dimension 18 inch, 'A' =27 inch (686 mm) 19 inch, 'A' =28 inch (711 mm) 20 inch, 'A' =29 inch (737 mm) 21 inch, 'A' =30 inch (762 mm) 22 inch, 'A' =31 inch (787 mm) 23 inch, 'A' =32 inch (813 mm) 24 inch, 'A' =33 inch (838 mm) 25 inch, 'A' =34 inch (864 mm) 26 inch, 'A' =35 inch (889 mm) 27 inch, 'A' =36 inch (914 mm) 28 inch, 'A' =37 inch (940 mm) 29 inch, 'A' =38 inch (965 mm) 30 inch, 'A' =39 inch (991 mm) 31 inch, 'A' =40 inch (1 016 mm) 32 inch, 'A' =41 inch (1 041 mm) 33 inch, 'A' =42 inch (1 067 mm) 34 inch, 'A' =43 inch (1 092 mm) 35 inch, 'A' =44 inch (1 118 mm) 36 inch, 'A' =45 inch (1 143 mm) 37 inch, 'A' =46 inch (1 168 mm) 38 inch, 'A' =47 inch (1 194 mm) 39 inch, 'A' =48 inch (1 219 mm) 40 inch, 'A' =49 inch (1 245 mm) 41 inch, 'A' =50 inch (1 270 mm) 42 inch, 'A' =51 inch (1 295 mm) 43 inch, 'A' =52 inch (1 321 mm) 44 inch, 'A' =53 inch (1 346 mm) 45 inch, 'A' =54 inch (1 372 mm) 46 inch, 'A' =55 inch (1 397 mm) 47 inch, 'A' =56 inch (1 422 mm) 48 inch, 'A' =57 inch (1 448 mm) 49 inch, 'A' =58 inch (1 473 mm) 50 inch, 'A' =59 inch (1 499 mm) 51 inch, 'A' =60 inch (1 524 mm) 52 inch, 'A' =61 inch (1 549 mm) 53 inch, 'A' =62 inch (1 575 mm) 54 inch, 'A' =63 inch (1 600 mm) 55 inch, 'A' =64 inch (1 626 mm) 56 inch, 'A' =65 inch (1 651 mm) 57 inch, 'A' =66 inch (1 676 mm) 58 inch, 'A' =67 inch (1 702 mm) 59 inch, 'A' =68 inch (1 727 mm) 60 inch, 'A' =69 inch (1 753 mm) 61 inch, 'A' =70 inch (1 778 mm) 62 inch, 'A' =71 inch (1 803 mm)	AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AQ AR AS AT AU AV AW BA BB BC BD BE BF BG BH BJ BK BL BM BN BP BQ BR BS BT BU BV BW CA CB CC	Weight type None For use with flat bar weights (weights not included) <u>Width based on belt width</u> 3 inch integrated round bar weight (18 ... 29 inch, 15.9 ... 22.7 kg) 3 inch integrated round bar weight (30 ... 41 inch, 26.8 ... 33.6 kg) 3 inch integrated round bar weight (42 ... 53 inch, 37.7 ... 44.5 kg) 3 inch integrated round bar weight (54 ... 65 inch, 48.6 ... 58.6 kg) 3 inch integrated round bar weight (66 ... 77 inch, 59.5 ... 69.5 kg) 3 inch integrated round bar weight (78 ... 89 inch, 70.4 ... 80.4 kg) 3 inch integrated round bar weight (90 ... 96 inch, 81.3 ... 86.8 kg) 4 inch integrated round bar weight (18 ... 29 inch, 23.3 ... 34.3 kg)	00 11 31 32 33 34 35 36 37 41

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Milltronics MWL weight lifter

Selection and ordering data

Article No.

Order Code

Milltronics MWL weight lifter

A mechanical calibration weight lifter for MSI, MMI, MCS, and MUS belt scale¹⁾

For use with MSI, ensure MSI fabrication option 4 1 is selected.

4 inch integrated round bar weight
(30 ... 41 inch, 42.7 ... 53.7 kg)

4 2

4 inch integrated round bar weight
(42 ... 53 inch, 62.1 ... 73.1 kg)

4 3

4 inch integrated round bar weight
(54 ... 65 inch, 81.5 ... 99.3 kg)

4 4

4 inch integrated round bar weight
(66 ... 77 inch, 100.9 ... 118.6 kg)

4 5

4 inch integrated round bar weight
(78 ... 89 inch, 120.3 ... 138.0 kg)

4 6

4 inch integrated round bar weight
(90 ... 96 inch, 139.6 ... 149.3 kg)

4 7

5 inch integrated round bar weight
(18 ... 29 inch, 32.9 ... 49.3 kg)

5 1

5 inch integrated round bar weight
(30 ... 41 inch, 63.2 ... 79.6 kg)

5 2

5 inch integrated round bar weight
(42 ... 53 inch, 93.5 ... 109.9 kg)

5 3

5 inch integrated round bar weight
(54 ... 65 inch, 123.7 ... 151.5 kg)

5 4

5 inch integrated round bar weight
(66 ... 77 inch, 154.0 ... 181.8 kg)

5 5

5 inch integrated round bar weight
(78 ... 89 inch, 184.3 ... 212.1 kg)

5 6

5 inch integrated round bar weight
(90 ... 96 inch, 214.6 ... 229.7 kg)

5 7

6 inch integrated round bar weight
(18 ... 29 inch, 44.5 ... 67.6 kg)

6 1

6 inch integrated round bar weight
(30 ... 41 inch, 88.2 ... 111.2 kg)

6 2

6 inch integrated round bar weight
(42 ... 53 inch, 131.8 ... 154.8 kg)

6 3

6 inch integrated round bar weight
(54 ... 65 inch, 175.4 ... 215.3 kg)

6 4

6 inch integrated round bar weight
(66 ... 77 inch, 219.0 ... 258.9 kg)

6 5

6 inch integrated round bar weight
(78 ... 89 inch, 262.6 ... 302.5 kg)

6 6

6 inch integrated round bar weight
(90 ... 96 inch, 306.2 ... 328.0 kg)

6 7

Fabrication

Standard, polyester painted mild steel

1

Electro galvanized mild steel

2

Other materials available upon request.

Further designs

Please add **"-Z"** to article no. and specify order code(s).

Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)],
Measuring-point number / identification
(max 27 characters), specify in plain text.

Y15

Manufacturer's test certificate:
According to EN 10204-2.2

C11

Right side mounted motor (facing the MWL's
weight's back)

M30

Left side mounted motor (facing the MWL's
weight's back)

M31

Motorized MWL control panel: local or remote
interface with up, down button/indicator,
NEMA/Type 4, IP65, 15.75 x 19.68 x 8.27 inch
(400 x 500 x 210 mm)

A10

Operating instructions

Article No.

- English

7ML1998-5CR03

- French

7ML1998-5CR12

- Spanish

7ML1998-5CR22

- German

7ML1998-5CR33

Note: The operating instructions should be
ordered as a separate line on the order.

Spare parts

MWL handle shaft extension, 3.75 inch (95 mm)

7MH7726-1AM

MWL module LH unit

7MH7723-1GU

MWL module RH unit

7MH7723-1GV

MWL handle

7MH7723-1GX

MWL retrofit kit (for Milltronics MSI, MMI belt
scales)

7MH7723-1FW

MWL retrofit kit galvanized (for Milltronics MSI,
MMI belt scales)

7MH7723-1JT

MWL retrofit kit (for Milltronics MCS belt scale)

7MH7723-1HA

MWL handle shaft extension galvanized
[3.75 inch (95 mm)]

7MH7223-1JS

MWL motorized control panel

7MH7223-1JV

MWL module LH unit galvanized

7MH7723-1HK

MWL module RH unit galvanized

7MH7723-1HL

MWL handle galvanized

7MH7723-1HM

Proximity switches for motorized MWL

7MH7723-1KH

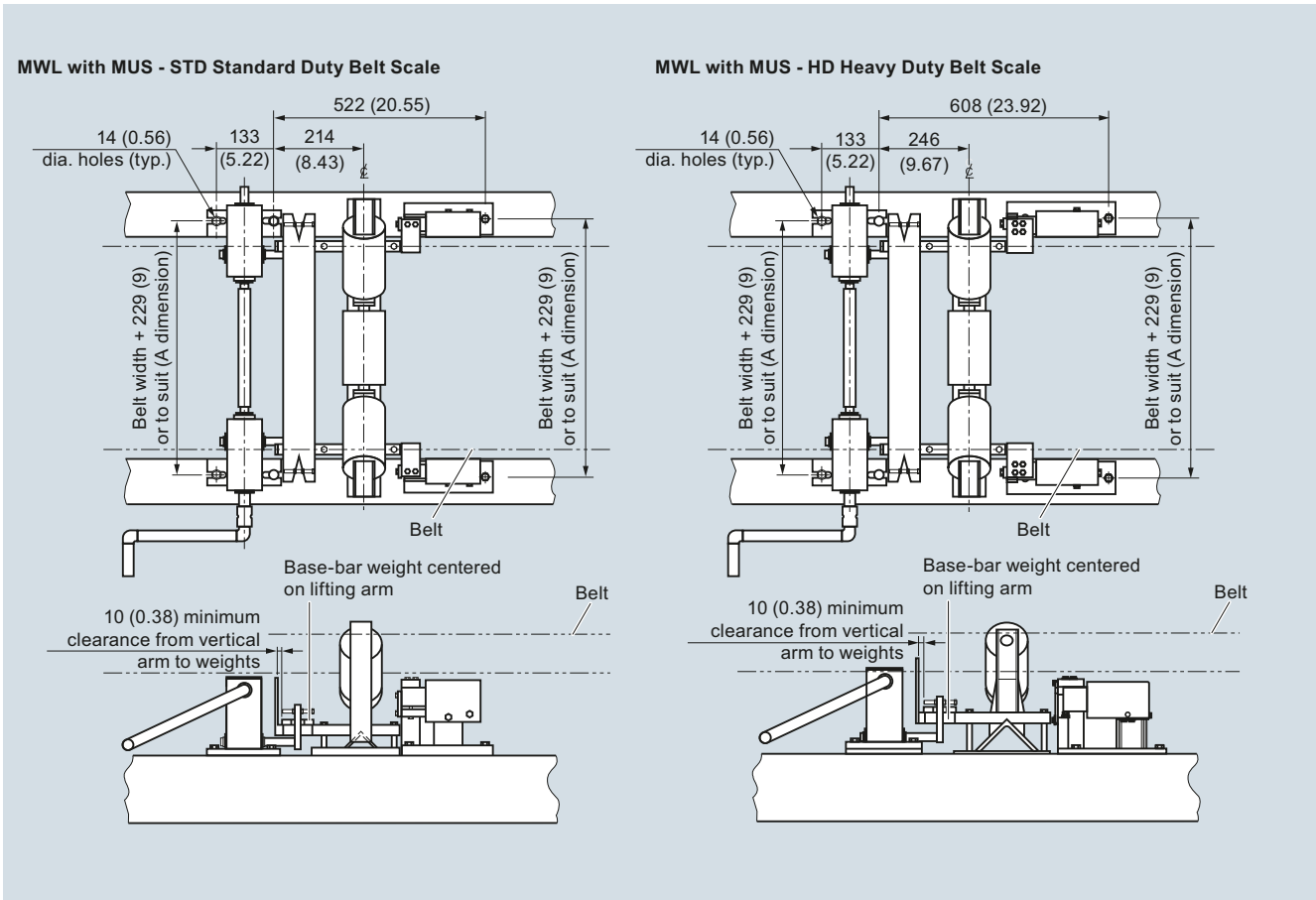
Gearmotor 220 ... 240/380 ... 460 V AC 3 pH
50/60 Hz

7MH7723-1KJ

Gearmotor 575 V AC 3 pH 60 Hz

7MH7723-1KK

Dimensional drawings



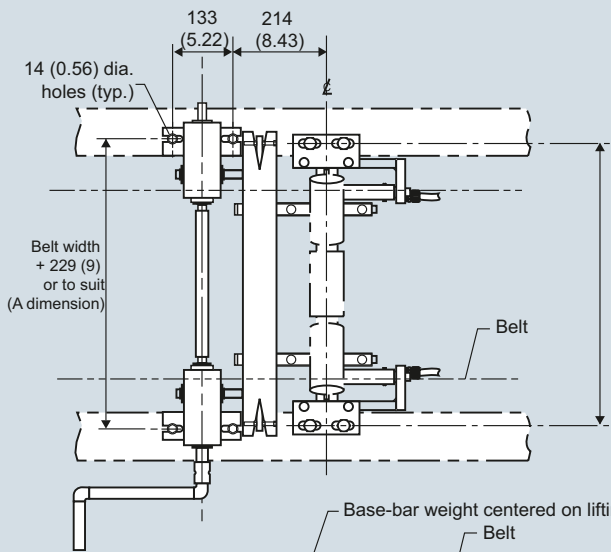
MWL, dimensions in mm (inch)

Belt Scales

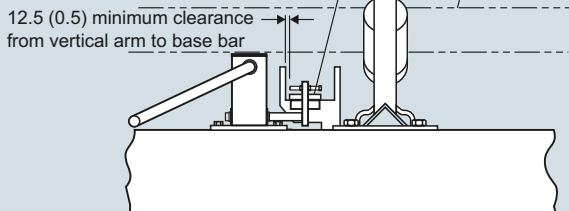
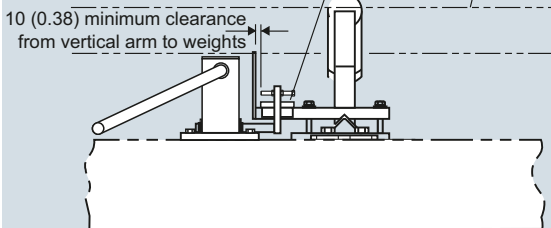
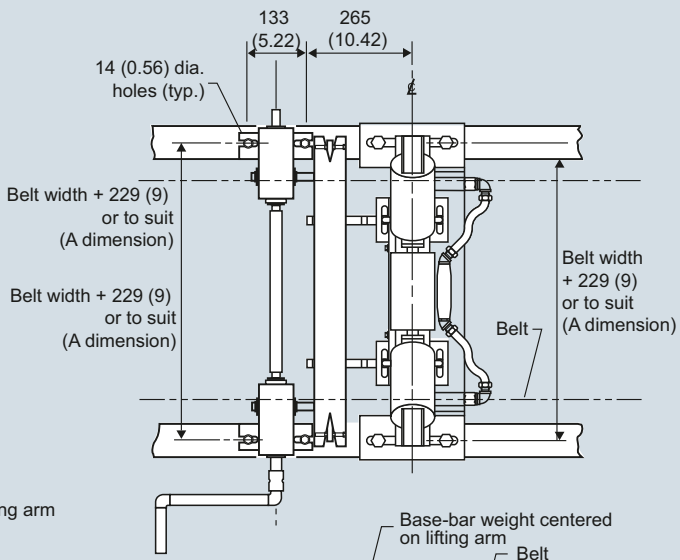
Belt scales accessories

Milltronics MWL weight lifter

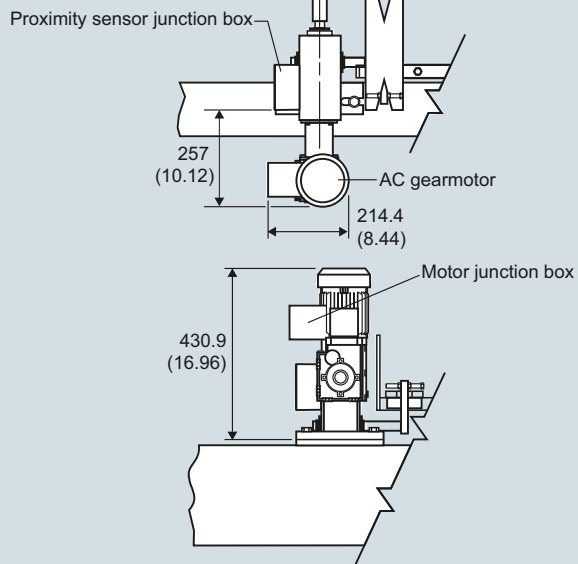
MWL with MCS belt scale



MWL with MSI/MMI belt scale



MWL electronic version



MWL, dimensions in mm (inch)

4