







HMJ 10 S 15 M

# Features & benefits

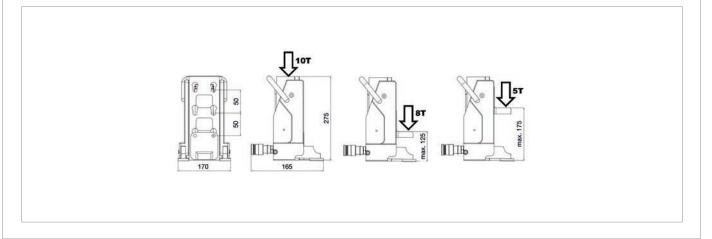
- Toe height adjustable in 3 positions: 25, 100 and 175 mm
  Protected against ejection of the plunger
  Telescopic support legs

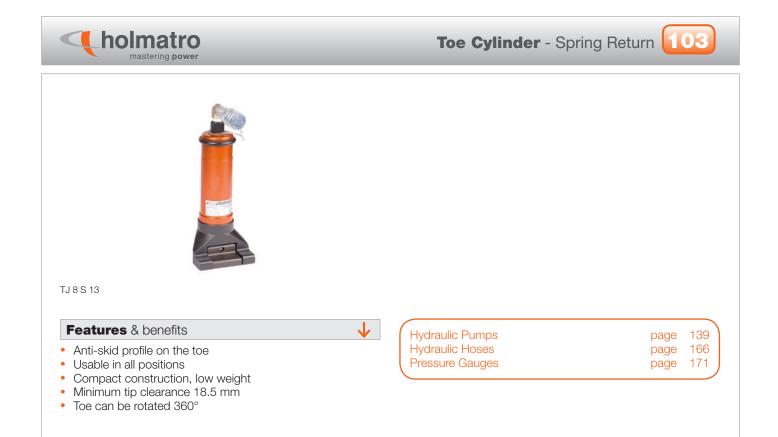
- Duplex Power coating
- Duo Power Ring concept

Hydraulic	Pumps	
Hydraulic	Hoses	
Pressure (	Gauges	
	U	

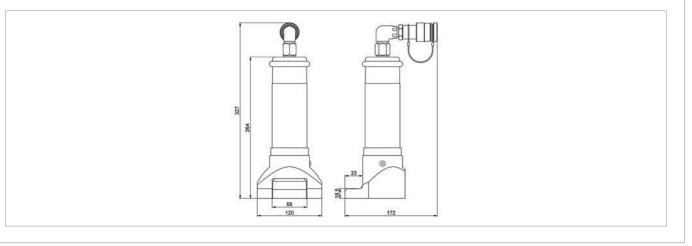
page 139 page 166 171 page

Machine Lift - Spring Return			
model		HMJ 10 S 15 M	
art no		100.062.004	
max. working pressure	bar/Mpa	720 / 72	
tonnage	t	10	
stroke length	mm	150	
closed height	mm	275	
capacity (head)	kN/t	100 / 10.2	
capacity (toe), min.	kN/t	49 / 5	
capacity (toe), max.	kN/t	78.5 / 8	
required oil content (effective)	СС	208	
return type		spring	
connection		A 118	
weight, ready for use	kg	18.5	





Toe Cylinder - Spring Return		
model		TJ 8 S 13
art no		100.112.102
max. working pressure	bar/Mpa	720 / 72
tonnage	t	8
stroke length	mm	130
closed height	mm	319
capacity (toe), min.	kN/t	88.3 / 9
required oil content (effective)	CC	207
return type		spring
connection		A 118
weight, ready for use	kg	6.5







HVLW 16 S 2

# Features & benefits

- 100% vertical lifting movement; prevents misalignment of load
- Automatic mechanical retraction of lifting plate
- Minimum insertion space of 9 mm
- Vertical lifting stroke of 20 mm at each step

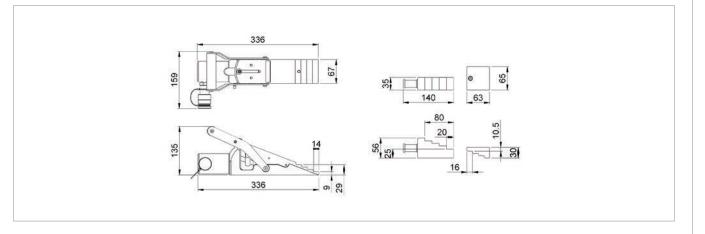
- Standard supplied with
- Safety block

 $\mathbf{J}$ 

- Step block
- Grease pistol
- Grease cartridge Molycote®Plastic carrying / storage box

Hydraulic Pumps	page	139
Hydraulic Hoses	page	166
Pressure Gauges	page	171

Vertical Lifting Wedge - Spring return 🗸 🗸 🗸			,
model		HVLW 16 S 2	
art no		100.112.104	
max. working pressure	bar/Mpa	720 / 72	
tonnage	t	16	
min. insertion space	mm	9	
lifting stroke	mm	20	
max. spreading force	kN/t	156.6 / 16	
required oil content (effective)	CC	75	
return type		spring	
weight, ready for use	kg	8.8	







HW 1000

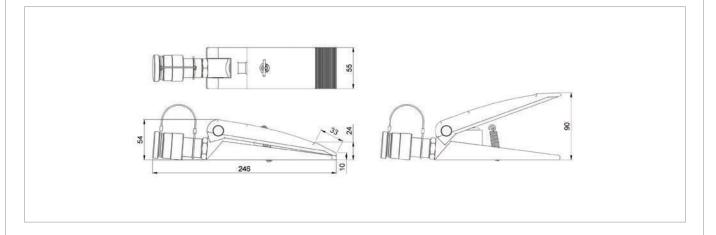
# Features & benefits

- Compact
- LightweightAnti-skid profile on wedge armsUsable in all positions

Hydraulic Pumps	page	139
Hydraulic Hoses	page	166
Pressure Gauges	page	171

Wedge - Spring Retu	rn	$\checkmark$
model		HW 1000
art no		100.562.009
max. working pressure	bar/Mpa	720 / 72
tonnage	t	1
min. insertion space	mm	15
lifting stroke	mm	90
max. spreading force	kN/t	10 / 1
required oil content (effective)	CC	10
return type		spring
weight, ready for use	kg	2.1

 $\mathbf{V}$ 







HWJ 25 U

# Features & benefits

- Minimum insertion space of 6 mm
- Compact construction
- Low weight
- Anti-skid profile on wedge blades
- Usable in all positions

	0
• humatro	

Hydraulic PumpspageHydraulic HosespagePressure Gaugespage

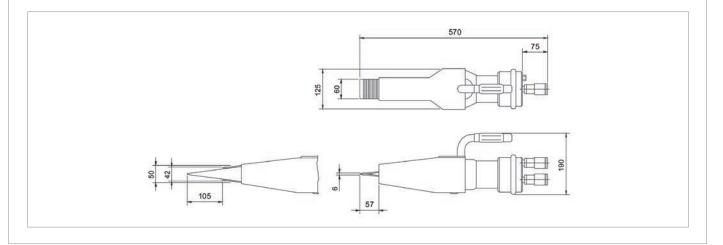
139

166

171

Wedge - Hydraulic Re	turn	$\checkmark$
model		HWJ 25 U
art no		100.102.021
max. working pressure	bar/Mpa	720 / 72
tonnage	t	25
min. insertion space	mm	6
lifting stroke	mm	44
max. spreading force	kN/t	253 / 25.8
return type		hydraulic
required oil content (press)	CC	328
required oil content (retract)	СС	217
weight, ready for use	kg	8.1

 $\mathbf{V}$ 







### Features & benefits

- Made of aramid reinforced nitril rubber NBR
   No corrosion
  - Durable
- Reinforced with 3 aramide inlays
  - Lightweight
  - Highly flexible
  - Proven durability
- Revolutionary non-slip design
  - Maximum grip on all surfaces
  - Interlocking when 2 bags are placed on top of each other
- Unique lower profile edges; easy insertion under all circumstances
- CE-icons; optimal safety for the user
- Light reflecting labels on top side; better visibility in dark environment which improved safety and user friendliness
- Centring cross on both sides; easy and safe positioning



# Standard supplied with

 $\mathbf{1}$ 

• "Autolock" couplers; quick connection with automatic double locking system

 $\mathbf{J}$ 

 $\mathbf{L}$ 

Carrying straps on HLB 40 and HLB 67

## Available on request

• Lifting capacity / height diagrams per model

Lifting Capacity / Height Diagrams	page	109
Hoses	page	110
Operating Valves	page	111
Accessories	page	112
Control Sets	page	113

Lifting Bags - Lifting Bags							
model		HLB 1	HLB 3	HLB 5	HLB 10	HLB 12	HLB 18
art no		350.321.003	350.321.004	350.321.006	350.321.007	350.321.008	350.321.009
max. working pressure	bar/Mpa	8 / 0.8	8 / 0.8	8 / 0.8	8/0.8	8 / 0.8	8/0.8
max. inflation height	mm	80	130	150	215	225	240
thickness incl. profile	mm	22	22	22	25	25	25
max. lifting capacity	kN/t	10 / 1	35 / 3.6	50 / 5.1	100 / 10.2	120 / 12.2	180 / 18.4
air content (8 bar)	I	6.3	16.2	22.5	76.5	90	171
water content (8 bar)	I	0.7	1.8	2.5	8.5	10	19
min. bursting pressure	bar/Mpa	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2
weight, ready for use	kg	0.6	1.5	2.0	3.8	5.0	6.8
dimensions (LxW)	mm	150 x 150	228 x 228	270 x 270	380 x 380	408 x 408	660 × 360





#### Features & benefits

- Made of aramid reinforced nitril rubber NBR
   No corrosion
  - Durable
- Reinforced with 3 aramide inlays
  - Lightweight
  - Highly flexible
  - Proven durability
- Revolutionary non-slip design
  - Maximum grip on all surfaces
- Interlocking when 2 bags are placed on top of each otherUnique lower profile edges; easy insertion under all
- circumstances
- CE-icons; optimal safety for the user
- Light reflecting labels on top side; better visibility in dark environment which improved safety and user friendliness
- Centring cross on both sides; easy and safe positioning



# Standard supplied with

 $\mathbf{1}$ 

• "Autolock" couplers; quick connection with automatic double locking system

 $\mathbf{J}$ 

 $\mathbf{L}$ 

Carrying straps on HLB 40 and HLB 67

## Available on request

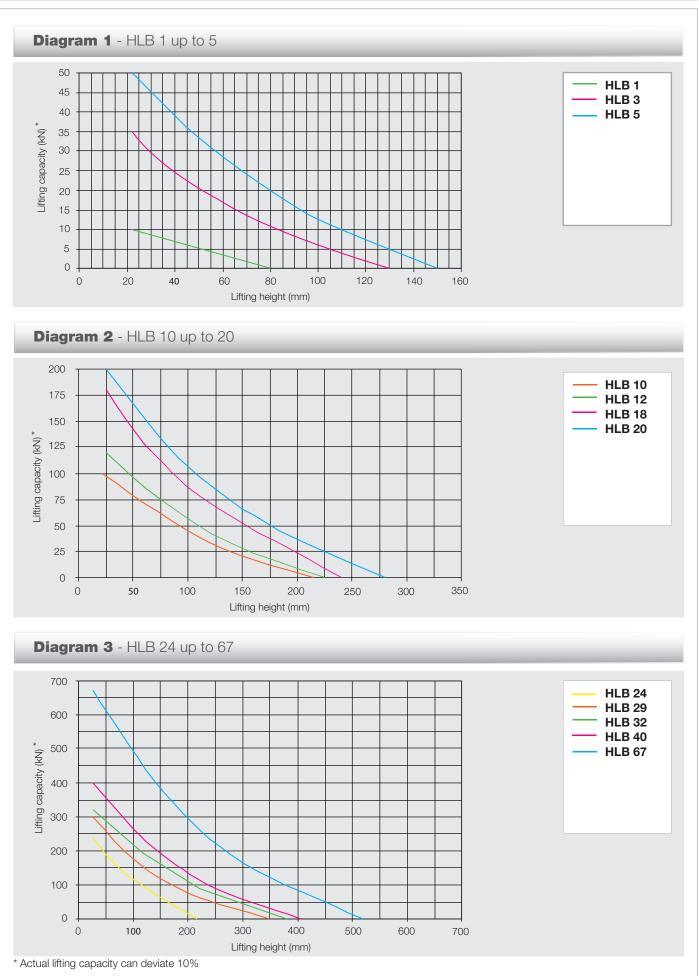
• Lifting capacity / height diagrams per model

Lifting Capacity / Height Diagrams Hoses Operating Valves	page	109 110 111 112
Accessories	page	112
Control Sets	page	113

Lifting Bags - Lifting Bags								
model		HLB 20	HLB 24	HLB 29	HLB 32	HLB 40	HLB 67	
art no		350.321.010	350.321.012	350.321.017	350.321.013	350.321.014	350.321.015	
max. working pressure	bar/Mpa	8 / 0.8	8 / 0.8	8 / 0.8	8/0.8	8 / 0.8	8/0.8	
max. inflation height	mm	290	215	348	380	405	520	
thickness incl. profile	mm	25	25	25	25	25	25	
max. lifting capacity	kN/t	200 / 20.4	240 / 24.5	300 / 30.6	320 / 32.6	400 / 40.8	670 / 68.3	
air content (8 bar)	I	189	216	373	450	558	1206	
water content (8 bar)	I	21	24	41.5	50	62	134	
min. bursting pressure	bar/Mpa	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2	32 / 3.2	
weight, ready for use	kg	6.7	9.5	9.8	13.0	15.1	23.5	
dimensions (LxW)	mm	508 x 508	1000 x 310	611 x 611	658 x 658	714 x 714	903 x 903	









 $\mathbf{V}$ 

 $\mathbf{V}$ 



# Features & benefits

- Flexible4:1 safety ratio

# Standard supplied with

 $\mathbf{V}$ 

• Male and female air coupler

# Available on request

• Different lengths and colours

Lifting Bags - Hoses							
model		5 YU	5 BU	5 RU	10 YU	10 BU	10 RU
art no		350.572.006	350.572.007	350.572.008	350.572.009	350.572.011	350.572.012
max. working pressure	bar/Mpa	16 / 1.6	16/1.6	16 / 1.6	16/1.6	16 / 1.6	16 / 1.6
color		yellow	blue	red	yellow	blue	red
length	m	5	5	5	10	10	10
temperature range	°C	-20 + 80	-20 + 80	-20 + 80	-20 + 80	-20 + 80	-20 + 80





mage	description	model	art no	
	<ul> <li>Single control unit</li> <li>For the control of 1 high-pressure lifting bag</li> <li>Safety valves set at 8.5 bars</li> </ul>	SCV 10 U	350.582.042	
	Double control unit <ul> <li>For the control of 2 high-pressure lifting bags</li> <li>Safety valves set at 8.5 bars</li> </ul>	DCV 10 U	350.582.034	
	<ul> <li>Triple control unit</li> <li>For the control of 3 high-pressure lifting bags</li> <li>Safety valves set at 8.5 bars</li> </ul>	TCV 10 U	350.582.059	
	Quadruple control unit <ul> <li>For the control of 4 high-pressure lifting bags</li> <li>Safety valves set at 8.5 bars</li> </ul>	QCV 10 U	350.582.060	
177	Synthetic control box • For operation of 2 lifting bags • Safety valves set at 8.5 bar	HDC 10 AU	350.182.003	
1 TT	Synthetic control box • For operation of 2 lifting bags • Safety valves set at 0,85 MPa	HDC 10 AJU	350.182.004	





ige	description	model	art no
	<ul> <li>Shut-off hose with safety</li> <li>To close high-pressure lifting bags while remaining under pressure in order to use hose and air source elswhere</li> </ul>	-	350.582.035
	Air bottle, 200 bar, 6 litres <ul> <li>For use with all air operated tools and pumps</li> </ul>	-	350.581.086
	Air bottle, 300 bar, 6 litres • For use with all air operated tools and pumps	-	350.581.096
	Connection piece • For connection of 2 air bottles 200 bar	-	350.582.420
~	<ul> <li>Connection piece</li> <li>For connection of 2 air bottles 300 bar</li> </ul>	-	350.582.430
··	Pressure reducer • For both 200 and 300 air bottles • Complete with hose 2 m	PRV 823 AU	350.182.002
	Adapter set <ul> <li>Synthetic carrying/storage case with various adapters for connection high- pressure lifting bags on various air sources</li> </ul>	UAS 10	350.582.050





mage	description	model	art no
- 00 - 0	<ul> <li>Air control set</li> <li>Synthetic orange carrying/storage case with control box, hoses, shut-off hose, pressure reducer and connection piece for air bottles 200 bar</li> </ul>	HCS 10 U_200	350.582.435
	Air control set <ul> <li>Synthetic orange carrying/storage case with control box, hoses, shut-off hose, pressure reducer and connection piece for air bottles 300 bar</li> </ul>	HCS 10 U_300	350.582.038
<b>♦</b> ~α #	Air control set <ul> <li>Synthetic orange carrying/storage case with control unit, hoses, shut-off hose, pressure reducer and connection piece for air bottles 200 bar</li> </ul>	DCS 10 U_200	350.582.436
	Air control set         • Synthetic orange carrying/storage case with control unit, hoses, shut-off hose, pressure reducer and connection piece for air bottles 300 bar	DCS 10 U_300	350.582.039





Set A

#### Features & benefits

- Environment-friendly
  - Made of recycled polyethylene
  - 100% re-usable
- Longer life span than wood; virtually indestructible through one piece moulding
- Non-absorbent material; total resistance to water and oil
- Stackable; non-slip with unique surface profile design
- Extra grip due to elasticity of material under load
- Higher surface pressure allowed; supports 100 kg/cm2 in all directions
- Lightweight; floats on water
- Safe; no splintering

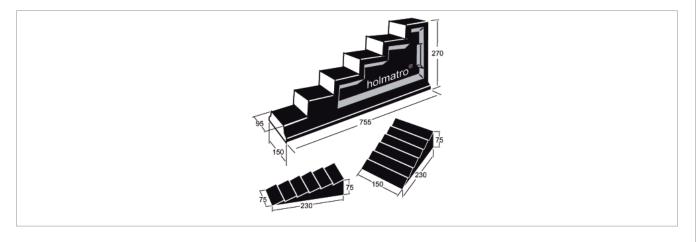


 $\mathbf{1}$ 

• 2 x 1 step chock, 6.3 kg (150.563.060)

- 2 x 1 wedge small, 0.5 kg (150.563.049)
- 2 x 1 wedge large, 1.0 kg (150.563.050)

Chocks And Blocks - Set A	· · · · · · · · · · · · · · · · · · ·
model	Set A
art no	150.562.010
weight, ready for use kg	15.6







 $\mathbf{1}$ 



Set B

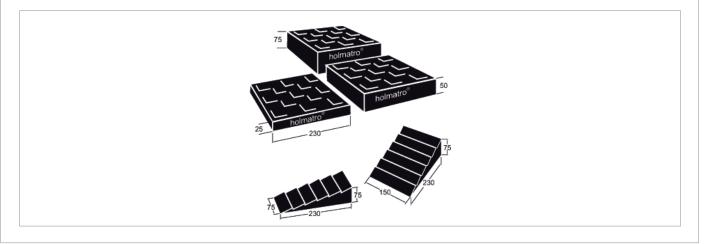
#### Features & benefits

- Environment-friendly
  - Made of recycled polyethylene
  - 100% re-usable
- Longer life span than wood; virtually indestructible through one piece moulding
- Non-absorbent material; total resistance to water and oil
- Stackable; non-slip with unique surface profile design
- Extra grip due to elasticity of material under load
- Higher surface pressure allowed; supports 100 kg/cm2 in all directions
- Lightweight; floats on water
- Safe; no splintering

#### Standard supplied with

- 2 x 1 wedge small, 0.5 kg (150.563.049)
- 2 x 1 wedge large, 1.0 kg (150.563.050)
- 2 x 1 lock block low, 1.0 kg (150.563.061)
- 2 x 1 lock block medium, 2.0 kg (150.563.071)
- 2 x 1 lock block high, 3.0 kg (150.563.073)

Chocks And Blocks - Set B	;
model	Set B
art no	150.562.004
weight, ready for use kg	15.0







 $\mathbf{1}$ 

# Features & benefits

- Made of cast iron; resistant to continuous heavy operating conditions
- Unique ratchet handle for engagement both wheel and plunger
- Self-locking; for safe working
- Robust; can be used close to welding works and under water
- Low maintenance
- A range of 13 models with different capacities and stroke lengths
- Almost all jacks have a handle

## Standard supplied with

• Handle bar

Traversing Beds	page	123	
Base Plates	page	123 125	











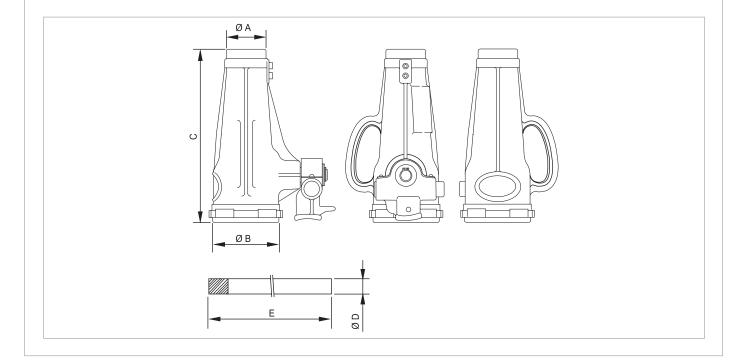




# Mechanical Tools - Jacks

Mechanical Tools - Jacks							
model		JJ 1015	JJ 1513	JJ 2513	JJ 2525	JJ 2533	JJ 3020
art no		200.401.001	200.401.011	200.401.021	200.102.001	200.102.005	200.102.002
tonnage	t	10	15	25	25	25	30
stroke length	mm	150	125	125	250	330	200
closed height	mm	280	255	255	395	485	350
capacity	kN/t	98.1 / 10	147.2 / 15	245.3 / 25	245.3 / 25	245.3 / 25	294 / 30
weight, ready for use	kg	12.0	12.0	16.0	21.0	25.0	26.0

Mechanical Tools - Jacks (dimensions)						
model	JJ 1015	JJ 1513	JJ 2513	JJ 2525	JJ 2533	JJ 3020
dimension A r	ım 65	63	77	77	77	95
dimension B r	ım 108	113	127	127	127	148
dimension C r	ım 280	255	255	395	485	350
dimension D r	ım 25	25	25	25	25	25
dimension E r	im 600	600	700	700	700	700

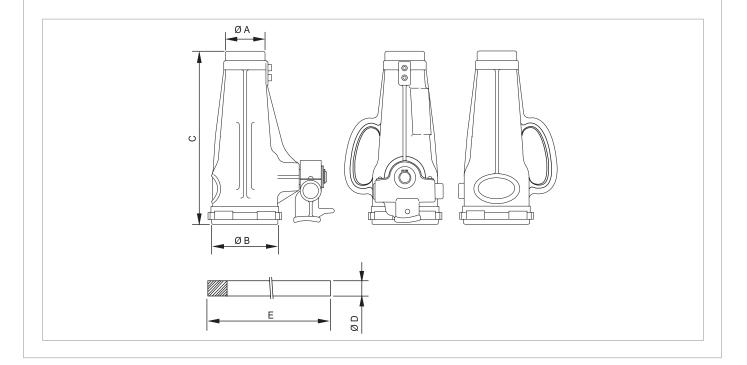




# Mechanical Tools - Jacks

Mechanical Tools - Jacks							
model		JJ 3513	JJ 3525	JJ 3535	JJ 5013	JJ 5025	JJ 5035
art no		200.401.031	200.102.003	200.102.006	200.401.041	200.102.004	200.102.007
tonnage	t	35	35	35	50	50	50
stroke length	mm	130	250	350	130	250	350
closed height	mm	280	410	535	290	445	555
capacity	kN/t	343.4 / 35	343.4 / 35	343.4 / 35	490.5 / 50	490.5 / 50	490.5 / 50
weight, ready for use	kg	24.0	32.0	37.0	31.0	42.0	47.0

Mechanical Tools - Jacks (dimensions)							
model		JJ 3513	JJ 3525	JJ 3535	JJ 5013	JJ 5025	JJ 5035
dimension A r	mm	87	87	87	105	105	105
dimension B	mm	147	147	147	166	166	166
dimension C r	mm	280	410	535	290	445	555
dimension D r	mm	32	32	32	32	32	32
dimension E r	mm	700	700	700	800	800	800

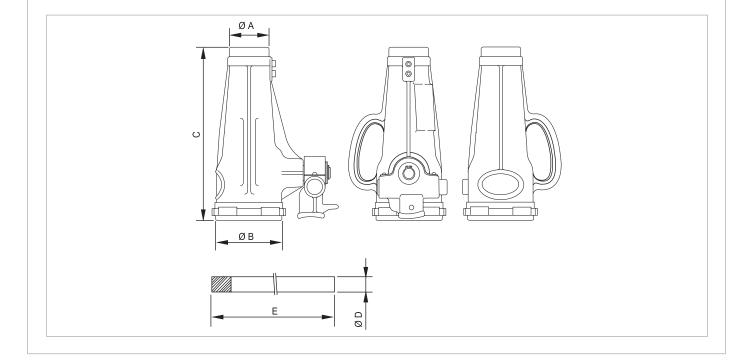




 $\mathbf{V}$ 

#### Mechanical Tools - Jacks model JJ 10011 art no 200.401.051 tonnage t 100 stroke length mm 105 closed height 310 mm 981 / 100 capacity kN/t kg 75.0 weight, ready for use

Mechanical Tools - Jacks (dimensions)					
model	J 10011				
dimension A r	27				
dimension B r	35				
dimension C r	10				
dimension D r	2				
dimension E r	500				





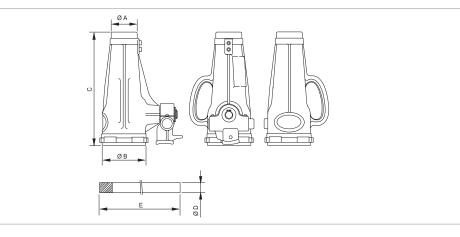


# Features & benefits

- Compact and lightweight construction; easy to work with and better for the welfare of your employees
- Special sliding pad instead of bearing
- Self-locking; for safe working
- Extendable handle bar
- All jacks have a handle

Mechanical Tools - Jacks - Aluminium					
model	AJ 1008	AJ 1510	AJ 2510		
art no	200.401.004	200.401.003	200.401.002		
tonnage t	10	15	25		
stroke length mm	80	100	100		
closed height mm	175	200	200		
capacity kN/t	100 / 10.2	150 / 15.3	250 / 25.5		
weight, ready for use kg	6.1	6.8	9.5		

Mechanical Tools - Jacks - Aluminium (dimensions)							
model		AJ 1008	AJ 1510	AJ 2510			
dimension A	mm	58	58	73			
dimension B	mm	102	102	122			
dimension C	mm	175	200	200			
dimension D	mm	27	27	30			
dimension E	mm	575	575	675			









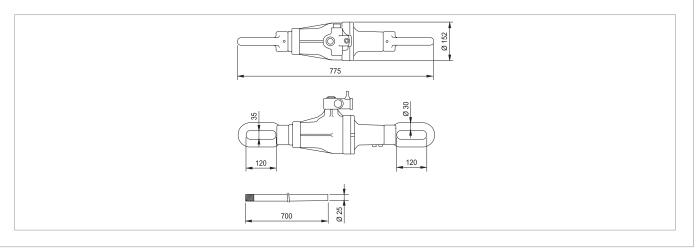


PL 2510

# Features & benefits

- Made of cast iron; resistant to continuous heavy operating conditions
- Unique ratchet handle for engagement both wheel and plunger
- Pulling eyes and an handle bar
- Self-locking; for safe working
- Robust; can be used close to welding works and under water
- Usable in all positions
- Low maintenance

Mechanical Tools - Pulling Jack		
model	PL 2510	
art no	200.421.001	
tonnage	t 25	
stroke length mr	100	
retracted length mr	775	
capacity kN/	t 245.3 / 25	
weight, ready for use k	32.0	









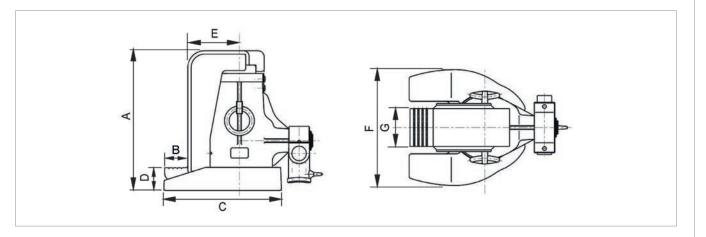
NJ 0615

# Features & benefits

- Made of cast iron; resistant to continuous heavy operating conditions
- Unique ratchet handle for engagement both wheel and plunger
- Self-locking; for safe working
- Robust; can be used close to welding works and under water
- Low maintenance

Mechanical Tools - Toe Jacks						
model		NJ 0615	NJ 1013	NJ 1513	NJ 2513	
art no		200.102.022	200.102.023	200.102.024	200.102.025	
tonnage	t	6	10	15	25	
capacity	kN/t	60 / 6.1	100 / 10.2	150 / 15.3	250 / 25.5	
weight, ready for use	kg	23.0	29.0	38.0	60.0	

Mechanical Tools - Toe Jacks (dimensions)						
model		NJ 0615	NJ 1013	NJ 1513	NJ 2513	
dimension A	mm	310	290	297	332	
dimension B	mm	45	50	50	55	
dimension C	mm	208	227	242	280	
dimension D	mm	30	40	45	55	
dimension E	mm	85	93	101	123	
dimension F	mm	195	210	230	275	
dimension G	mm	70	75	80	90	







TB 1030

### Features & benefits

- Made of cast iron; resistant to continuous heavy operating conditions
- Screw shaft and handle bar; for easy operating
- Self-locking; for safe working
- Robust; can be used close to welding works and under water
- Low maintenance



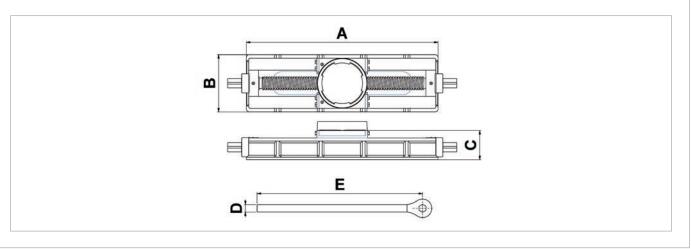
# Additional information

ATTENTION: Cannot be used with JJ 10011, Aluminium Mechanical jacks and Mechanical Toe jacks!

 $\mathbf{1}$ 

Mechanical Tools - Accessories - Traversing Beds							4
model		TB 1030	TB 1530	TB 2530	TB 2545	TB 3530	TB 3545
art no		200.102.008	200.102.009	200.102.010	200.102.011	200.102.012	200.102.013
suitable for jack		JJ 1015	JJ 1513	JJ 25**	JJ 25**	JJ 30** / JJ 35**	JJ 30** / JJ 35**
max. horizontal displacement	mm	300	300	300	450		450
weight, ready for use	kg	20.0	20.0	25.0	31.0	33.0	38.0

Mechanical Tools - Accessories - Traversing Beds (dimensions)							
model		TB 1030	TB 1530	TB 2530	TB 2545	TB 3530	TB 3545
dimension A	mm	465	465	470	620	505	655
dimension B	mm	165	165	185	185	200	200
dimension C	mm	85	85	90	90	97	97
dimension D	mm	24	24	30	30	30	30
dimension E	mm	535	535	600	600	600	600







TB 5030

#### Features & benefits

- Made of cast iron; resistant to continuous heavy operating conditions
- Screw shaft and handle bar; for easy operating
- Self-locking; for safe working
- Robust; can be used close to welding works and under water
- Low maintenance



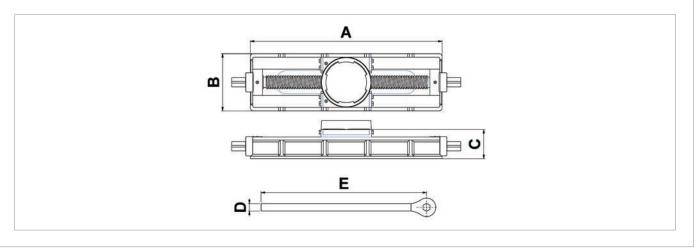
# Additional information

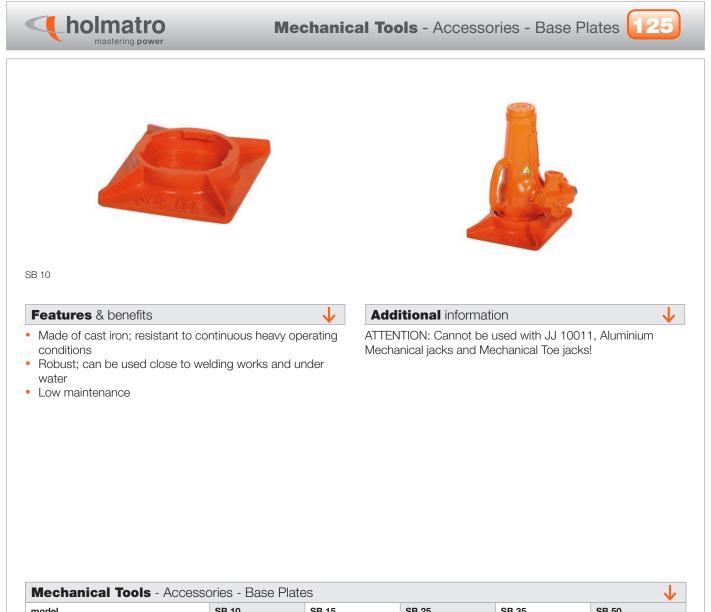
ATTENTION: Cannot be used with JJ 10011, Aluminium Mechanical jacks and Mechanical Toe jacks!

 $\mathbf{1}$ 

Mechanical Tools - Accessories - Traversing Beds				
model	TB 5030	TB 5045		
art no	200.102.014	200.102.015		
suitable for jack	JJ 50**	JJ 50**		
max. horizontal displacement mr	n 300	450		
weight, ready for use k	g 43.0	66.0		

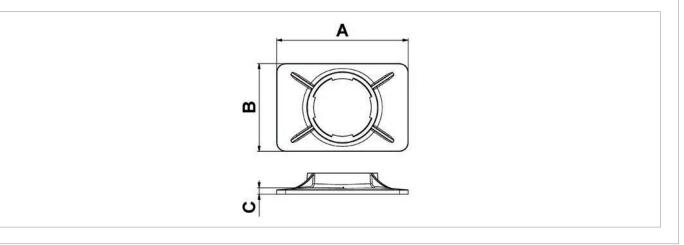
Mechanical Tools - Accessories - Traversing Beds (dimensions)					
model		TB 5030	TB 5045		
dimension A	mm	530	670		
dimension B	mm	210	220		
dimension C	mm	108	128		
dimension D	mm	30	30		
dimension E	mm	600	600		





Mechanical Tools - Accessories - Base Plates								
model		SB 10	SB 15	SB 25	SB 35	SB 50		
art no		200.102.016	200.102.017	200.102.018	200.102.020	200.102.021		
suitable for jack		JJ 1015	JJ 1513	JJ 25**	JJ 30** & JJ 35**	JJ 50**		
weight, ready for use	kg	2.0	5.0	7.5	9.5	20.0		

Mechanical Tools - Accessories - Base Plates (dimensions)							
model		SB 10	SB 15	SB 25	SB 35	SB 50	
dimension A	mm	220	240	300	300	400	
dimension B	mm	180	190	200	220	300	
dimension C	mm	10	12	15	18	19	









W 50

# Features & benefits

- Unloads in one go with maximum load
- Robust; resistant to continuous heavy operating conditionsCan be used close to welding works
- Low maintenance

Ship Wedges 🗸				
model		W 50	W 80	
art no		500.501.050	500.501.080	
max. height	mm	225	340	
min. height	mm	200	275	
capacity	kN/t	490.5 / 50	784.8 / 80	
weight, ready for use	kg	29.0	64.5	
dimensions (AxBxC)	mm	390 x 255 x 200	570 x 345 x 275	

