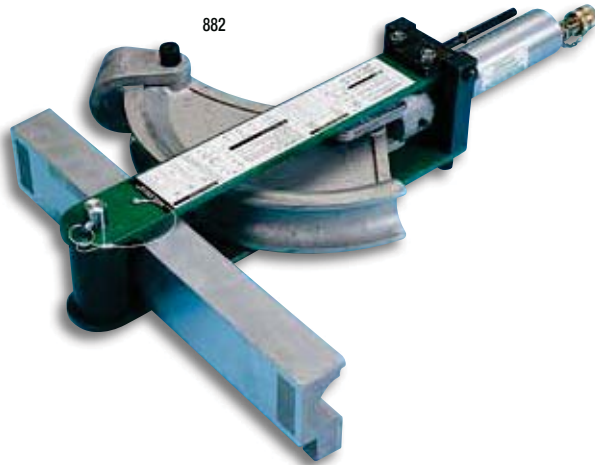


Flip-Top® Benders for 1-1/4" - 2" EMT, IMC and Rigid



- Choose 882 for EMT or 882CB models for EMT, IMC and Rigid Conduit
- Simple, accurate and easy to use
- Flip-Top hinged frame top plate opens for easy, fast loading and unloading
- Ram travel scale and charts for accurate bends, offsets and saddles

SPECIFICATIONS

Capacity	882-1-1/4", 1-1/2" and 2" EMT 882CB-1-1/4", 1-1/2" and 2" EMT, IMC and Rigid
Power Source	755- Hydraulic Hand Pump 975- 120 VAC Electric Hydraulic Pump 976-22PS- 220 VAC 50/60 Cycle Electric Hydraulic Pump
Weight	882-141 LBS(64 kg) 882H755- 161 LBS(73 kg) 882CBH755- 217 LBS(99 kg) 882CBE975- 264 LBS(120 kg) 882E975- 195 LBS(89 kg) 882CB- 205 LBS(93 kg)

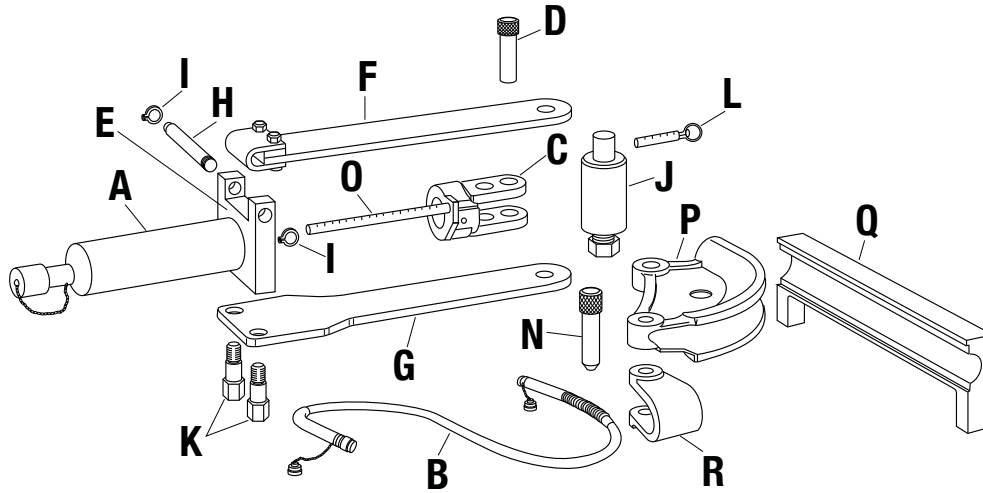
FLIP-TOP® BENDER CENTERLINE BENDING RADII

SIZE	882, 882CB		882CB
	EMT	RIGID	IMC
1-1/4"	7-7/32" (183.4 mm)	7-1/4" (184.2 mm)	7-1/4" (184.2 mm)
1-1/2"	8-1/16" (204.8 mm)	8-1/4" (209.5 mm)	8-1/4" (209.5 mm)
2"	9-5/16" (236.5 mm)	8-7/8" (225.4 mm)	8-7/8" (225.4 mm)

CAT. NO.	UPC NO.	DESCRIPTION
882	15128	Flip-Top Bender for 1-1/4", 1-1/2" and 2" EMT Conduit without Hydraulic Pump
882CB	29536	Flip-Top Bender with shoes for 1-1/4", 1-1/2" and 2" EMT, IMC and Rigid Conduit without Hydraulic Pump
882CBH755	29537	Flip-Top Bender with shoes for 1-1/4", 1-1/2" and 2" EMT, IMC and Rigid Conduit with 755 Hand Hydraulic Pump
882CBE975	34202	Flip-Top Bender with shoes for 1-1/4", 1-1/2" and 2" EMT, IMC and Rigid Conduit with 975 Electric Hydraulic Pump
882H755	16460	Flip-Top Bender for 1-1/4", 1-1/2" and 2" EMT Conduit with 755 Hand Hydraulic Pump
882E975	34201	Flip-Top Bender for 1-1/4", 1-1/2" and 2" EMT Conduit with 975 Electric Hydraulic Pump
A 882RIG1	29948	Conversion Attachment Set - Converts 882 to 882CB by adding the shoes, follow bars and saddles for 1-1/4", 1-1/2" and 2" IMC and Rigid Conduit

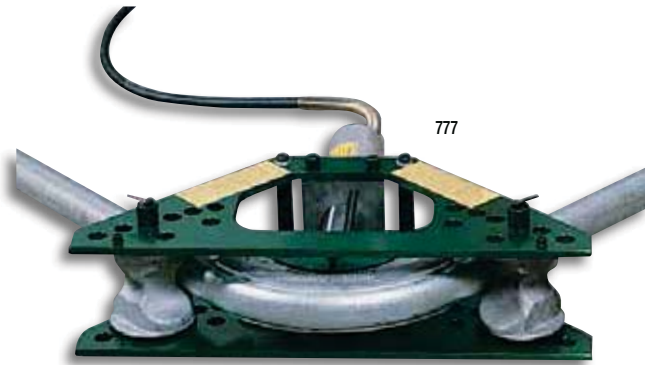
NOTE: See next page for parts associated with the Flip-Top® Benders

Flip-Top® Benders and Shoe Groups



KEY	CAT. NO.	UPC NO.	DESCRIPTION	BENDERS		SHOE GROUP
				882	882CB	882RIG1
A	1738	15129	12-Ton Hydraulic Ram with 4018GB female quick Coupler	1	1	
B	11289	11289	3/8" x 6' (9.5 x 1829 mm) Hydraulic Hose with two 4033GB male quick couplers	1	1	
C	15145	15145	Yoke	1	1	
D	794AV	04086	Yoke Pin	1	1	
E	16563	16563	Frame Unit (includes F thru K)	1	1	
F	15136	15136	Upper Connecting Plate Unit	1	1	
G	15135	15135	Lower Connecting Plate Unit	1	1	
H	15150	15150	Hinge Pin	1	1	
I	50283	50283	Retaining Ring	2	2	
J	38778	38778	Roller Unit with pin (L)	1	1	
K	15147	15147	Anchor Stud	2	2	
L	54303	54303	Hitch Pin, 3/8 x 1-1/2	1	1	1
N	29937	29937	Saddle Pin	1		
O	4090GB	50848	Scale Jam Nut			
O	52867	52867	Scale O-Ring			
O	21954	21954	Scale Piston	1	1	
	1531	23274	Steel Storage Box (not shown)	1	1	
P	11146	11146	1-1/4" EMT Shoe	1	1	
Q	11126	11126	1-1/4" EMT Follow Bar	1	1	
R	11075	11075	1-1/4" EMT Saddle	1	1	
P	14287	14287	1-1/2" EMT Shoe	1	1	
Q	11107	11107	1-1/2" EMT Follow Bar	1	1	
R	11072	11072	1-1/2" EMT Saddle	1	1	
P	11132	11132	2" EMT Shoe	1	1	
Q	11089	11089	2" EMT Follow Bar	1	1	
R	14279	14279	2" EMT Saddle	1	1	
P	29474	29474	1-1/4" IMC and Rigid Shoe		1	1
Q	29477	29477	1-1/4" IMC and Rigid Follow Bar		1	1
R	29465	29465	1-1/4" IMC and Rigid Saddle		1	1
P	29470	29470	1-1/2" IMC and Rigid Shoe		1	1
Q	29472	29472	1-1/2" IMC and Rigid Follow Bar		1	1
R	29464	29464	1-1/2" IMC and Rigid Saddle		1	1
P	29466	29466	2" IMC and Rigid Shoe		1	1
Q	29468	29468	2" IMC and Rigid Follow Bar		1	1
R	29463	29463	2" IMC and Rigid Saddle		1	1

Rigid Conduit Bender for 1-1/4" - 2" One-Shot 90°s and 2-1/2" - 4" Segment Bending



- Strong, portable pin-assembled aluminum components
- Easy-to-use ram travel scale and bending charts
- Conduit supports index to suit all sizes

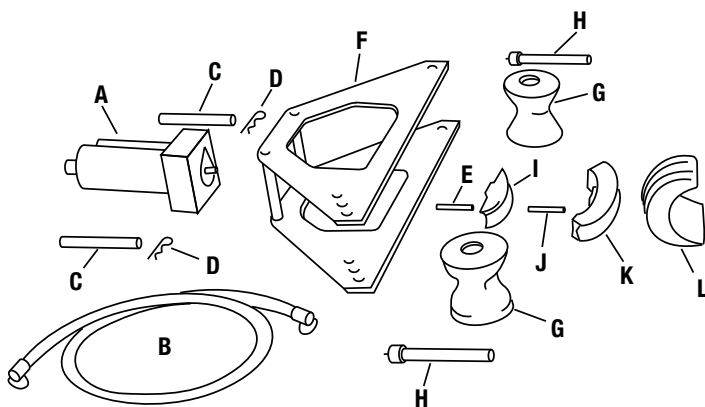
SPECIFICATIONS

Capacity	1-1/4" - 4" Rigid Conduit
Power Source	755: Hydraulic Hand Pump 975: 120 VAC Electric Hydraulic Pump 980: 120 VAC Electric Hydraulic Pump
Weight	777: 164 LBS (75 kg) 777HC755: 173 LBS (79 kg) 777E975: 508 LBS (231 kg)

CAT. NO.	UPC NO.	DESCRIPTION
777	16491	1-1/4" through 2" One-Shot and 2-1/2" through 4" Segment, Rigid Conduit Bender without hydraulic pump
777HC755	16470	1-1/4" through 2" One-Shot and 2-1/2" through 4" Segment, Rigid Conduit Bender with 755 Hand Hydraulic Pump
777E975	34198	1-1/4" through 2" One-Shot and 2-1/2" through 4" Segment, Rigid Conduit Bender with 975 Electric Hydraulic Pump
A 1802	21257	Bending Table (Optional)
A 21359	21359	Conduit Support Pin for use with 1802 Bending Table - (2) Required

CENTERLINE BENDING RADII FOR 777 BENDERS

Rigid Shoe Size	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"
Bending Radius-Inches	7-1/4"	8-1/4"	9-1/2"	11-7/16"	13-3/4"	16"	18-1/4"
Bending Radius-mm	184.1	209.5	241.3	290.5	349.3	406.4	463.6



KEY	CAT. NO.	UPC NO.	DESCRIPTION	777
A	1736	13251	27-Ton Hydraulic Ram with 4018GB female quick coupler, includes Keys C thru E	1
B	11289	11289	3/8" x 6' (9.5 x 1829 mm) Hose with two 4033GB male quick couplers	1
C	13252	13252	Cylinder Head Pin Unit with Spring Clip 2725AA (Key D)	2
D	50302	50302	Spring Clip	2
E	10826	10826	Ram Pin	1
F	13232	13232	Frame Unit	1
G	13193	13193	Conduit Support	2
H	14496	14496	Conduit Support Pin	2
I	10939	10939	Small Shoe Support 1/2" thru 2"	1
J	10826	10826	Shoe Pin	1
K			90° Aluminum Bending Shoes	
	10920	10920	1-1/4" Shoe	1
	10921	10921	1-1/2" Shoe	1
	10922	10922	2" Shoe	1
L			Aluminum Segment Bending Shoes	
	13208	13208	2-1/2" Shoe	1
	13209	13209	3" Shoe	1
	13210	13210	3-1/2" Shoe	1
	13211	13211	4" Shoe	1
	13382	13382	Steel Storage Box (not shown)	1

Rigid Conduit Bender for 1/2", 3/4", 1", 1-1/4", 1-1/2" and 2"



- Strong, portable pin-assembled aluminum components
- Easy-to-use ram travel scale and bending charts
- Conduit supports index to suit all sizes

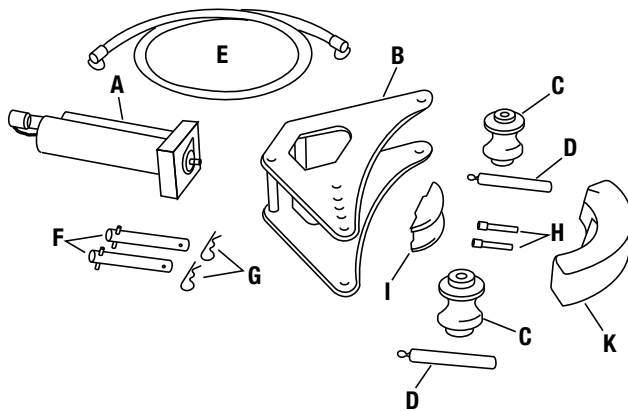
SPECIFICATIONS

Capacity	880: 1" - 2" Rigid Conduit
Power Source	755: Hydraulic Hand Pump 975: 120 VAC Electric Hydraulic Pump 980: 120 VAC Electric Hydraulic Pump
Weight	880: 113 LBS (52 kg) 880H755: 135 LBS (61 kg) 880E975: 172 LBS (78 kg)

CAT. NO.	UPC NO.	DESCRIPTION
880	16480	1", 1-1/4", 1-1/2" and 2" Rigid Conduit Bender without hydraulic pump
880H755	16464	1", 1-1/4", 1-1/2" and 2" Rigid Conduit Bender with 755 Hand Hydraulic Pump
880E975	34200	1", 1-1/4", 1-1/2" and 2" Rigid Conduit Bender with 975 Electric Hydraulic Pump
A 1802	21257	Bending Table (Optional)
A 21357	21357	Conduit Support Pin for use with 1802 Bending Table - (2) Required
A 10917	10917	1/2" Shoe (Optional)
A 10918	10918	3/4" Shoe (Optional)

CENTERLINE BENDING RADII FOR 880 & 880 PVC BENDERS

Rigid Shoe Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Bending Radius-Inches	4"	4-1/2"	5-3/4"	7-1/4"	8-1/4"	9-1/2"
Bending Radius-cm	10.16	11.43	14.60	18.41	20.95	24.13



KEY	CAT. NO.	UPC NO.	DESCRIPTION	880
A	747	16249	15-Ton Hydraulic Ram with 4018GB female quick coupler, includes Keys F, G and one H	1
B	2345AA	03396	Frame Unit	1
C	2349AA	03400	Conduit Support	2
D	13679	13679	Conduit Support Pin	2
E	11289	11289	3/8" x 6' (9.5 x 1829 mm) Hydraulic Hose with two 4033GB male quick couplers	1
F	15829	15829	Cylinder Head Pin Unit with Spring Clips 2725AA (Key G)	2
G	50302	50302	Spring Clips	2
H	10826	10826	Ram Pin, Shoe Pin	2
I	10939	10939	Shoe Support	1
K	10919	10919	1" Shoe - Rigid	1
K	10920	10920	1-1/4" Shoe - Rigid	1
K	10921	10921	1-1/2" Shoe - Rigid	1
K	10922	10922	2" Shoe - Rigid	1
	14909	14909	Steel Storage Box (not shown)	1

Rigid Conduit Benders for One-Shot 90°s in 1-1/4" - 4" (5" with Segment Bending Shoe)



- Strong, yet lightweight, portable, pin-assembled aluminum components
- Easy-to-use ram travel scale and charts for accurate bends
- Make elbows, offsets and saddles
- Both 884 and 885 bend One-Shot 90°s in 1-1/4" - 4" Rigid conduit
- Optional shoes available to bend PVC-coated Rigid conduit*
- Optional 1802 Bending Table available for easier operation

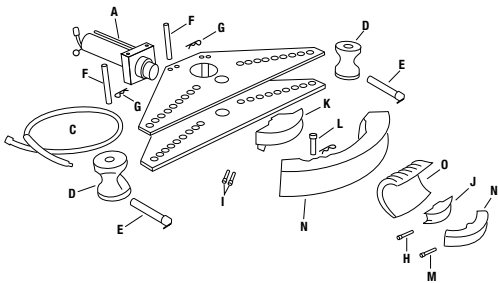
CAT. NO.	UPC NO.	DESCRIPTION
884	16477	1-1/4" through 4" Rigid Conduit Bender, without hydraulic pump
884E980	34209	1-1/4" through 4" Rigid Conduit Bender, with 980 Electric Hydraulic Pump
884PVC	33614	1-1/4", 1-1/2", 2", 3" and 4" PVC Coated Rigid Conduit Bender without hydraulic pump
885	16751	1-1/4" through 4" One-Shot and 5" Segment Rigid Conduit Bender, without hydraulic pump
885E980	34210	1-1/4" through 4" One-Shot and 5" Segment Rigid Conduit Bender, with 980 Electric Hydraulic Pump
A 1802	21257	Bending Table (optional)

Shoes for 40 mil PVC Coated Rigid Conduit on page 150.

SPECIFICATIONS

Capacity	884: 1-1/4" - 4" Rigid conduit.	Weight	884: 421 LBS (191 kg)
	884PVC: 1-1/4" - 4" 40 mil PVC Coated Rigid Conduit		884E980: 494 LBS (225 kg)
	885: 1-1/4" - 5" Rigid Conduit		884PVC: 388 LBS (176 kg)
Power Source	980: 120 VAC Electric Powered Hydraulic Pump	885: 449 LBS (204 kg)	
	980-22PS: 220 VAC 50/60 Cycle Electric Powered Hydraulic Pump	885E980: 527 LBS (239 kg)	

Rigid Conduit Benders for One-Shot 90°s in 1-1/4" - 4" (5" with Segment Bending Shoe)



884 & 885 CENTERLINE BENDING RADII

SIZE	Rigid	SIZE	PVC Rigid
1-1/4"	7-1/4" (184.1 mm)	1-1/4"	7-1/4" (184.1 mm)
1-1/2"	8-1/4" (209.5 mm)	1-1/2"	8-1/4" (209.5 mm)
2"	9-1/2" (241.3 mm)	2"	9-1/2" (241.3 mm)
2-1/2"	12-1/2" (317.5 mm)	2-1/2"	11-7/16" (290.5 mm)
3"	15" (381 mm)	3"	13-3/4" (349.3 mm)
3-1/2"	17-1/2" (444.5 mm)	3-1/2"	16" (406.4 mm)
4"	20" (508 mm)	4"	18-1/4" (463.5 mm)
5"	25" (635 mm) (885 only)		

KEY	CAT. NO.	UPC NO.	DESCRIPTION	884	884PVC	885
A	1737	16752	27-Ton Hydraulic Ram with 4018GB female quick coupler, includes Keys F thru I.	1	1	1
C	11289	11289	3/8" x 6' (9.5 x 1829 mm) Hydraulic Hose with two 4033GB male quick couplers	1	1	1
D	15671	15671	Conduit Support	2		2
	33454	33454	Conduit Support (not shown)		2	
E	16747	16747	Conduit Support pin	2	2	2
F	16753	16753	Cylinder Head Pin Unit with Spring Clip 2725AA	2	2	2
G	50302	50302	Spring Clip	2	2	2
H	25184	25184	Ram Pin	1	1	1
I	10946	10946	Large Ram Pin	2	2	2
J	10939	10939	Small Shoe Support (1/2" through 2")	1	1	1
K	16741	16741	Large Shoe Support (2-1/2" through 4")	1	1	1
L	10963	10963	Large Shoe Pin	1	1	1
M	10826	10826	Small Shoe Pin	1	1	1
	2050	19811	Steel Storage Box (not shown)	1	1	1
N	10920	10920	1-1/4" Shoe - Rigid	1		1
N	10921	10921	1-1/2" Shoe - Rigid	1		1
N	10922	10922	2" Shoe - Rigid	1		1
N	10923	10923	2-1/2" Shoe - Rigid	1		1
N	10924	10924	3" Shoe - Rigid	1		1
N	10925	10925	3-1/2" Shoe - Rigid	1		1
N	14265	14265	4" Shoe - 20" centerline radius - Rigid	1		1
N	15669	15669	5" Shoe - Rigid			1
O	33459	33459	1-1/4" Shoe - PVC		1	
N	33463	33463	1-1/2" Shoe - PVC		1	
N	33462	33462	2" Shoe - PVC		1	
N	34340	34340	3" Shoe - PVC		1	
N	34344	34344	4" Shoe - PVC		1	
N	34329	34329	7/8" Wrench (not shown)		1	

Accessories for Bending 40 Mil PVC-Coated Rigid Conduit for 880 and 884 Benders

884PVC



- Special size shoes and supports for bending 40 mil PVC-Coated Rigid conduit
- Two conduit supports to fit your bender are required. Shoes for 1-1/2" or larger have a cam device to force the conduit out of the shoe after bending; this requires a wrench to turn the cam

SHOE UNITS

40 MIL PVC COATED RIGID SIZE

SIZE	CAT. NO.	UPC NO.	DESCRIPTION
1/2"	33456	33456	Shoe Unit 4" (101.6 mm) Centerline Radius
3/4"	33457	33457	Shoe Unit 4-1/2" (114.3 mm) Centerline Radius
1"	33458	33458	Shoe Unit 5-3/4" (146.1 mm) Centerline Radius
1-1/4"	33459	33459	Shoe Unit 7-1/4" (184.2 mm) Centerline Radius
1-1/2"	33463	33463	Shoe Unit 8-1/4" (209.6 mm) Centerline Radius
2"	33462	33462	Shoe Unit 9-1/2" (241.3 mm) Centerline Radius
2-1/2"	34321	34321	Shoe Unit 11-7/16" (290.5 mm) Centerline Radius
3"	34340	34340	Shoe Unit 13-3/4" (349.3 mm) Centerline Radius
3-1/2"	34342	34342	Shoe Unit 16" (406.4 mm) Centerline Radius
4"	34344	34344 </td <td>Shoe Unit 18-1/4" (463.6 mm) Centerline Radius</td>	Shoe Unit 18-1/4" (463.6 mm) Centerline Radius
—	33455	33455	880 Conduit Support – 2 Required
—	33454	33454	884 Conduit Support – 2 Required
—	34329	34329	7/8" Wrench. Use with 1-1/2" and larger shoes

BENDERS / PARTS

CAT. NO.	UPC NO.	DESCRIPTION
884PVC	33614	An 884 Bender with shoes, supports and wrench for bending 1-1/4", 1-1/2", 2", 3" and 4" 40 mil PVC Coated Rigid conduit. In a steel storage box. (See 884 Conduit Bender for details)

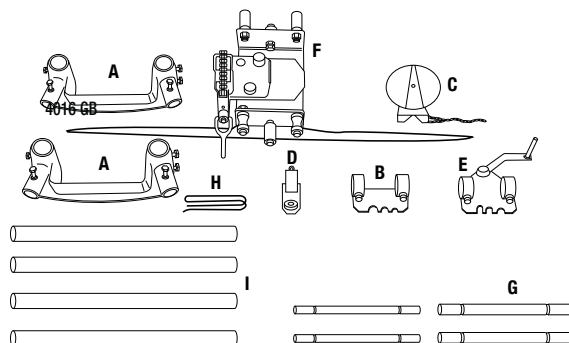
Bending Table (only) for 777, 880, 884 and 885 Rigid Conduit Benders



- Make bending easier, faster and more accurate
- Insert conduit to be bent in chain vise, tighten. Turn handle to move the chain vise and position conduit for bending
- Use the Bending Degree Protractor and the movable chain vise to advance conduit while making segment and other multi-shot large sweep bends
- Includes 1805 Bending Degree Protractor and metal storage box

CAT. NO.	UPC NO.	DESCRIPTION
1802	21257	Bending Table - includes pipe support pins for 884 or 885 Benders
21359	21359	Pipe support Pin for use with 777, 883 and 883-4 Benders, two (2) are required (Optional)
21357	21357	Pipe Support Pin for use with 880 Bender, two (2) are required (Optional)

NOTE: To complete setup as shown two 10-foot (3.04 m) lengths of 2" Rigid conduit and Bender are required (purchased separately).



KEY	CAT. NO.	UPC NO.	DESCRIPTION	1802
A	21541	21541	Leg Support Unit	2
B	21545	21545	Bender Bracket Unit	1
C	1805	1805	Bending Degree Protractor	1
D	21542	21542	Chain Idler Unit	1
E	21543	21543	Crank Bracket Unit	1
F	21544	21544	Pipe Vise Unit	1
G	21360	21360	Pipe Support Pin – 1-1/2" for 884 and 885 Bender	2
H	21413	21413	Chain Extension Kit	1
I	21346	21346	Legs	4
	1531	23274	Steel Storage Box (not shown)	1

SPECIFICATIONS

Capacity	777, 880, 883, 884 and 885 Benders
Weight	180 LBS (82 kg)

Chain-Type Pipe Vise

467



- Use with a wide range of sizes of pipe or conduit
- Built-in pipe rest
- To prevent marring of plastic or plastic coated pipe, vise jaws can be rotated with smooth side up - Use serrated side for harder materials
- Chain design holds pipe securely to prevent it from twisting or turning during threading

SPECIFICATIONS

Capacity	1/8" - 5" (3.2 mm x 127 mm) pipe
Weight	17 LBS (7.7 kg)

CAT. NO.	UPC NO.	DESCRIPTION
467	27318	Chain-Type Pipe Vise

HYDRAULIC PUMPS

High-Pressure Hydraulic Hand Pump

755



- Portable and powerful, for use with Greenlee Benders
- Versatile, operates in any position
- Steel pump body and handle with rubber grip
- Wide base for stability
- Mounting holes for permanent positioning
- Includes 3/8" (9.5 mm) female hydraulic connector and dust cap

SPECIFICATIONS

Operation	Manual – Hand
Capacity	10,000 psi (700 bar), .161 in ³ (26 mm ³) per stroke
Length	25-1/2" (648 mm)
Width	7" (178 mm)
Height	6" (152 mm)

CAT. NO.	UPC NO.	DESCRIPTION	WEIGHT	
			LBS	kg
755	15677	High-Pressure Hydraulic Hand Pump	18	8.2
R 18272	18272	Seal Kit		

NOTE: See page 107 to select the proper hydraulic hose for this pump.

Hand-Operated Hydraulic Pump

7475H



- Two-speed hydraulic pump. Ideal for use with remote cutting and crimping tools
- Compact and lightweight – easy to move around job sites
- Solid base with wide legs provides for good stability during operation
- Built-in carrying handle
- Large, easy-to-grasp, retraction wheel
- Equipped with 3/8" female screw-type hydraulic coupler

SPECIFICATIONS

Max output pressure	10,000 psi (700 bar)
Useable oil capacity	0.75 quart (0.74 liter)
1st stage oil volume (200 psi)	0.82 cu in/stroke
2nd stage oil volume (10,000 psi)	0.16 cu in/stroke
Length (including coupler)	25" (635 mm)
Width	5-5/8" (143 mm)
Height	5-1/2" (140 mm)

CAT. NO.	UPC NO.	DESCRIPTION
7475H	07475	Hand-Operated Hydraulic Pump
R 07829	07829	Seal Kit

NOTE: See page 107 to select the proper hydraulic hose for this pump.

Electric Hydraulic Pump



975

- Useable oil volume: 3 quarts (2.8 liters)
- For use with Greenlee 2" capacity benders
- Automatic or manual ram-return selector valve provides more control from the pendant switch
- Molded enclosure protects pump, motor and circuitry in tough working environments
- Use with single-hose hydraulic systems with spring-return rams

SPECIFICATIONS

Operation	120 VAC 1/2 HP (.375 kW)
Capacity	10,000 psi (700 bar); 250 inch ³ (4 L) per minute rapid advance; 18 inch ³ (.32 L) per minute at full pressure
Length	12" (305 mm)
Width	10" (254 mm)
Height	15-1/2" (394 mm)

CAT. NO.	UPC NO.	DESCRIPTION	WEIGHT	
			LBS	kg
975	33516	Electric Hydraulic Pump	51	23
 34369	34369	Seal Kit		

NOTE: See page 107 to select the proper hydraulic hose for this pump.

Electric Hydraulic Pump




980

- Useable oil volume: 6 quarts (5.7 liters)
- For use with all Greenlee benders
- Handy pendant advance control on 980 and 980-22PS
- Low voltage pendant coupled to solid state motor controls eliminates contact arcing for greater reliability and longer life
- Automatic or manual ram return selector valve provides more control from the pendant switch
- Molded enclosure protects pump, motor and circuitry in tough working environments
- Use with single-hose hydraulic systems with spring-return rams

SPECIFICATIONS

Operation	980 – 120 VAC 1-1/2 Hp (1.12 kW) 980-22PS – 220 VAC 50Hz 1-1/2 Hp (1.12 kW)
Capacity	10,000 psi (700 bar); 250 inch ³ (4 L) per minute rapid advance; 54 inch ³ (.9 L) per minute at full pressure
Length	12" (305 mm)
Width	12" (305 mm)
Height	17-1/2" (445 mm)

CAT. NO.	UPC NO.	DESCRIPTION	WEIGHT	
			LBS	KG
980	33515	Electric Hydraulic Pump with Pendant	71	32
980-22	36314	Electric Hydraulic Pump	71	32
980-22PS	36313	Electric Hydraulic Pump with Pendant Switch	71	32
 34369	34369	Seal Kit		

Note: 980-22 is 220V pump only, no control switch

Note: See page 107 to select the proper hydraulic hose for this pump.

Hydraulic Oil



4016 GB

4017 GB

- Greenlee-approved hydraulic oil
- Specially compounded for use with Greenlee hydraulic equipment
- Refinery-filtered to give you the finest oil available

CAT. NO.	UPC NO.	DESCRIPTION	WEIGHT	
			LBS	KG
4016GB	51059	Hydraulic Oil – 1 Gallon (3.8 l)	8.5	3.9
4017GB	50806	Hydraulic Oil – 1 Quart (.9 l)	2.25	1.02

NOTE: For best operation of your Greenlee hydraulic-powered equipment, use Greenlee hydraulic oil only. (Do not use hydraulic brake fluid, shock absorber fluid, alcohol, glycerine, castor oil or other non-specified fluid—as they reduce performance and can cause damage to pumps and equipment.) Use of improper fluids waives the guarantee on Greenlee hydraulic equipment.