

## Hydraulic Pipe Benders



### Hydraulic Pipe Benders.

For bending  $\frac{3}{8}$ " to 4" metal pipe and tubing. Available with open, tip-up or sliding wing heads in either manual or electric powered versions providing piston forces from 50 kN (5,000 kg) to 200 kN (20,000 kg).

RIDGID benders feature a single circuit hydraulic system with spring return which enables the ram to be advanced in controlled stages permitting easy and precise bending of the pipes and fast withdrawal of the piston. Special safety system protects the hydraulic circuit from over-pressurization and consequent damage in all electric powered versions. Supplied in a wooden case and delivered with a set of bending formers to accommodate different pipe sizes. Optional accessories include a tripod (for manual benders up to 2"), attachments for 180° bends, special formers for a wide range of pipes, and a special attachment for 180° bends in flat bars. To maintain proper operation, use RIDGID hydraulic fluid.

*Diameter of piston end: 35mm (all models).  
Diameter of hole in formers: 38mm (all types).*

### Manually Operated Hydraulic Benders

Catalog No.	Model No.	Type	Capacity	Pump Force kN	Weight kg
13701	3801	Open Wing Head	$\frac{3}{8}$ "-1 $\frac{1}{4}$ "	50	56
13671	3811	Tip-Up Wing Head	$\frac{3}{8}$ "-1 $\frac{1}{4}$ "	50	46
16401	3811S	Sliding Wing Head	$\frac{3}{8}$ "-1 $\frac{1}{4}$ "	50	46
13711	3802	Open Wing Head	$\frac{3}{8}$ "-2"	80	98
13681	3812	Tip-Up Wing Head	$\frac{3}{8}$ "-2"	80	82
16411	3812S	Sliding Wing Head	$\frac{3}{8}$ "-2"	80	73
13691	3813	Tip-Up Wing Head	$\frac{3}{8}$ "-3"	130	182
14921	3814*	Tip-Up Wing Head	$\frac{3}{8}$ "-4"	200	410

### Capacity

Nominal Diameter	Max. Wall Thickness
$\frac{3}{8}$ " - 1 $\frac{1}{4}$ "	4mm
1 $\frac{1}{2}$ " - 2 $\frac{1}{2}$ "	4.5mm
3"	5mm
4"	5.5mm

### Electric Motor Operated Hydraulic Benders

Catalog No.	Model No.	Type	Capacity	Pump Force kN	Motor Power kW	Std. Voltage 50 Hz	Weight kg
13721	3801E	Open Wing Head	$\frac{3}{8}$ "-1 $\frac{1}{4}$ "	50	1,4	230 1PH	76
13731	3801E	Open Wing Head	$\frac{3}{8}$ "-1 $\frac{1}{4}$ "	50	1,4	400 3PH	76
13741	3802E	Open Wing Head	$\frac{3}{8}$ "-2"	80	1,4	230 1PH	115
13751	3802E	Open Wing Head	$\frac{3}{8}$ "-2"	80	1,5	400 3PH	115
14871	3812E	Tip-Up Wing Head	$\frac{3}{8}$ "-2"	80	1,4	115 1PH	100
13761	3812E	Tip-Up Wing Head	$\frac{3}{8}$ "-2"	80	1,4	230 1PH	100
13771	3812E	Tip-Up Wing Head	$\frac{3}{8}$ "-2"	80	1,5	400 3PH	100
14881	3813E	Tip-Up Wing Head	$\frac{3}{8}$ "-3"	130	1,4	115 1PH	208
15001	3813E	Tip-Up Wing Head	$\frac{3}{8}$ "-3"	130	1,4	230 1PH	208
13781	3813E	Tip-Up Wing Head	$\frac{3}{8}$ "-3"	130	1,5	400 3PH	208
14931	3814E*	Tip-Up Wing Head	$\frac{3}{8}$ "-4"	200	1,4	230 1PH	440
14941	3814E*	Tip-Up Wing Head	$\frac{3}{8}$ "-4"	200	1,5	400 3PH	440

# Formers

Nominal Size	Actual O.D. (mm)	Standard Pipe and Tube		Plastic Coated Pipe		Thin Wall / High Strength Tube		180° Bends	
		Radius	Cat. No.	Radius	Cat. No.	Radius	Cat. No.	Radius	Cat. No.
1/4"	13.5	60	28286						
3/8"	17.2	45	21806	110	22276			130	22376
18	18	60	27816						
20	20	70	27826						
1/2"	21.3	50	21816	110	22286	110	22236	130	22386
22	22	80	27836						
25	25	115	22116						
3/4"	26.9	65	21826	137	22296	137	22246	130	22396
28	28	70	35066						
30	30	140	22126						
32	32	140	22136						
1"	33.7	100	21836	140	22306	190	22256	130	22406
35	35	100	35076						
38	38	170	22146						
40	40	125	35086						
42	42	125	35096						
1 1/4"	42.4	130	21846	170	22316	220	22266	130	22416
44.5	44.5	190	22156						
1 1/2"	48.3	150	21856	220	22326	220	22166	140	22426
50	50	140	35106						
51	51	220	22176						
57	57	250	22186						
2"	60.3	200	21866	270	22336	270	22196	200	28766
63.5	63.5	270	22206						
70	70	315	22216						
2 1/2"	76.1	320	21876			420	22226		
3"	88.9	380	21886						
4"	114.3	600	28756						

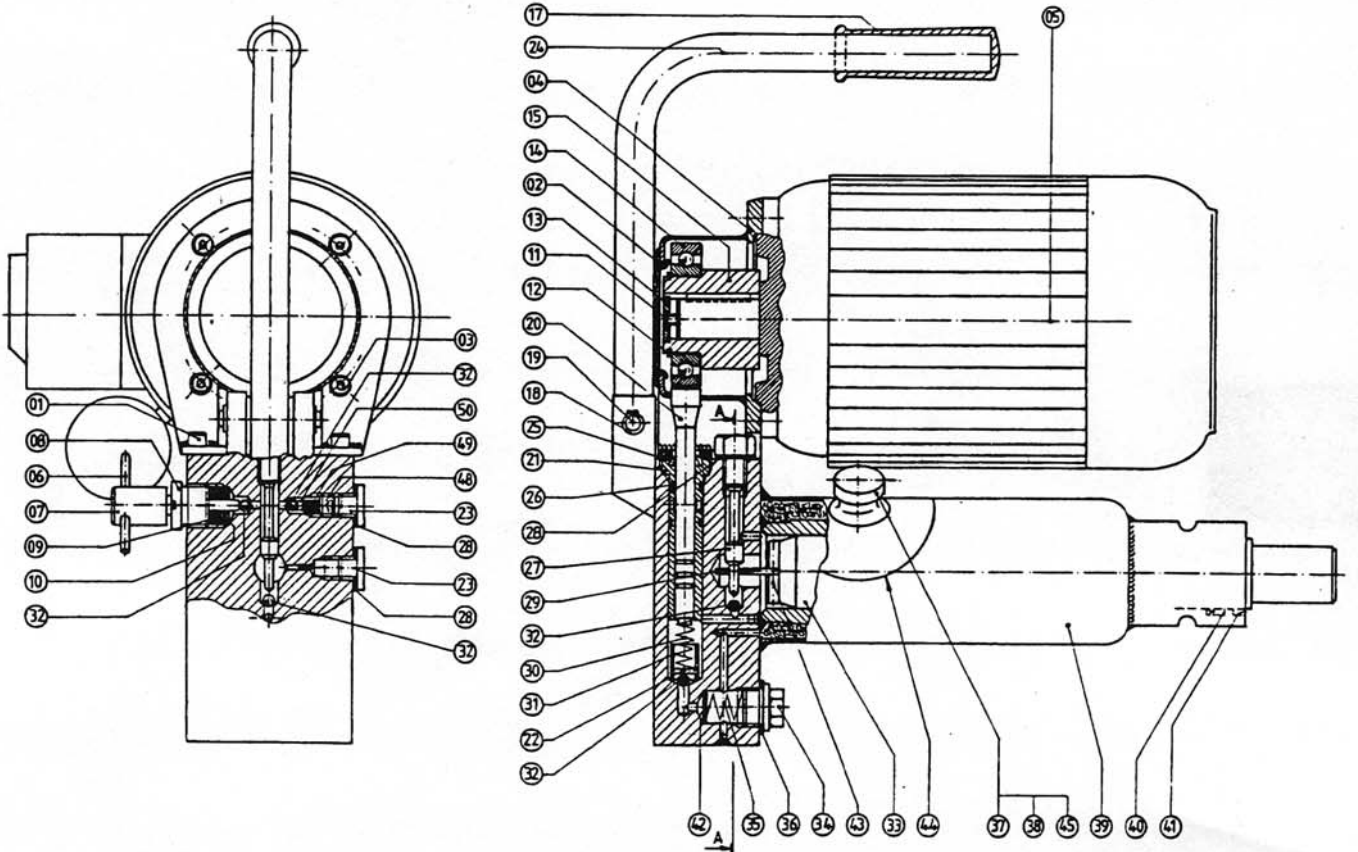
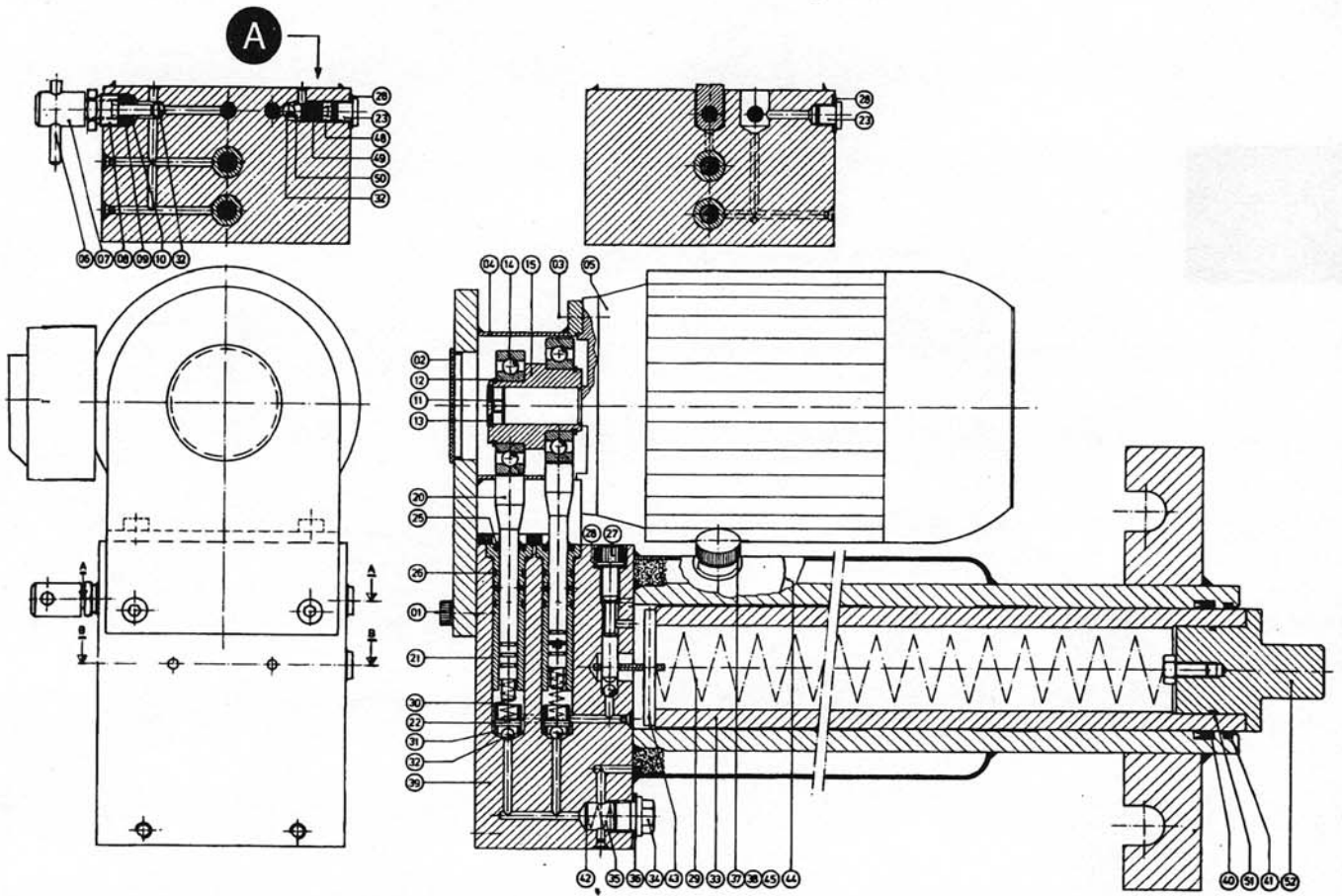
● Standard formers supplied with bender

Weights: See Price List

## Accessories

Cat. No.	Description	Wt. kg	Std. Pack
<b>ATTACHMENT - 180 DEG.</b>			
22346	HAIRPIN BEND F/3812	17,00	1
22356	HAIRPIN BEND F/3813	17,00	1
22366	HAIRPIN BEND F/3802	17,00	1
<b>FLAT BARS 40 x 8MM. FORMERS - 180 DEG.</b>			
22436	ATTACHMENT F/3812	3,00	1
22446	ATTACHMENT F/3802	2,50	1
22456	ATTACHMENT F/3813	3,50	1
22466	FORMER - R60	2,00	1
22476	FORMER - R70	2,50	1
22486	FORMER - R80	3,00	1
22496	FORMER - R90	4,00	1
22506	FORMER - R100	4,00	1
22516	FORMER - R110	5,50	1
22526	FORMER - R120	6,00	1
22536	FORMER - R130	7,00	1
<b>STROKE ADJUSTMENTS</b>			
26896	FOR 3801E/3811E 230V	4,50	1
26906	FOR 3801E/3811E 400V	4,50	1
26916	FOR 3802E/3812E/3813E 230V	4,50	1
26926	FOR 3802E/3812E/3813E 400V	3,49	1
29126	FOR 3814E 230V	4,56	1
29116	FOR 3814E 400V	4,56	1
<b>CORNER SUPPORTS - FIXING PINS</b>			
21966	FOR 3811	3,00	1
21976	FOR 3801	1,50	1
21986	FOR 3812	3,26	1
21996	FOR 3802	5,50	1

Cat. No.	Description	Wt. kg	Std. Pack
<b>CORNER SUPPORTS - FIXING PINS</b>			
22006	FOR 3813	10,00	1
28776	FOR 3814E/2"	5,50	1
28786	FOR 3814E/4"	19,00	1
22016	FIXING PIN F/3811	0,50	1
22026	FIXING PIN F/3801	1,00	1
22036	FIXING PIN F/3812	0,44	1
22046	FIXING PIN F/3802	2,00	1
22056	FIXING PIN F/3813	0,50	1
<b>BENDING FRAMES</b>			
27846	FOR 3811	6,50	1
28796	FOR 3801	14,65	1
28806	FOR 3812	13,00	1
28816	FOR 3802	29,50	1
28826	FOR 3813	36,50	1
28836	FOR 3814	124,00	1
<b>WOODEN CASES</b>			
28846	FOR 3801/3811	10,60	1
28856	FOR 3802/3812	13,60	1
28866	FOR 3813	21,00	1
28876	FOR 3801E/3802E/3812E	18,00	1
28886	FOR 3813E	29,00	1
28896	FOR 3814E	65,00	1
<b>OTHER ACCESSORIES</b>			
14031	TURNABLE TRIPOD	7,50	1
14061	2.5 LTR OIL FOR BENDERS	2,50	1
21896	STRAIGHTENER	1,50	1
27696	EXTENSION FOR 3"	1,50	1



**Accessories**

	3802	3812	3813
180° Attachment	22366	22346	22356
40 x 8 mm Bar attachment	22446	22436	22456

See bending formers

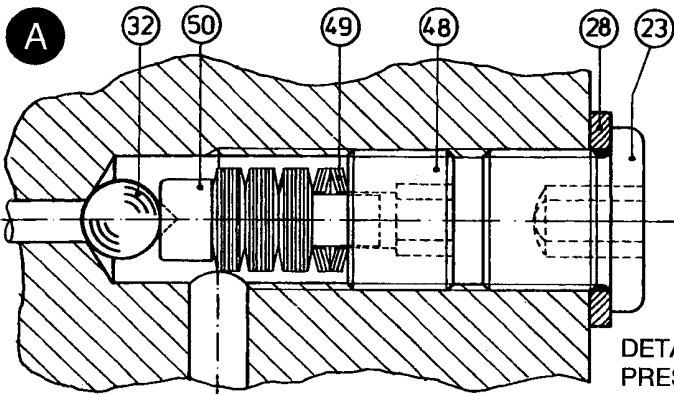
See below for formers

Stroke adjustment	3801 E / 3811 E2		3802 E / 12 E / 13 E	3814 E
	220 V	26896	26916	29126
	360 V	26906	26926	29116
	115 V	35116	34916	35726

Radius (mm)	60	70	80	90	100	110	120	130
40 x 8 mm Bar formers	22466	22476	22486	22496	22506	22516	22526	22536

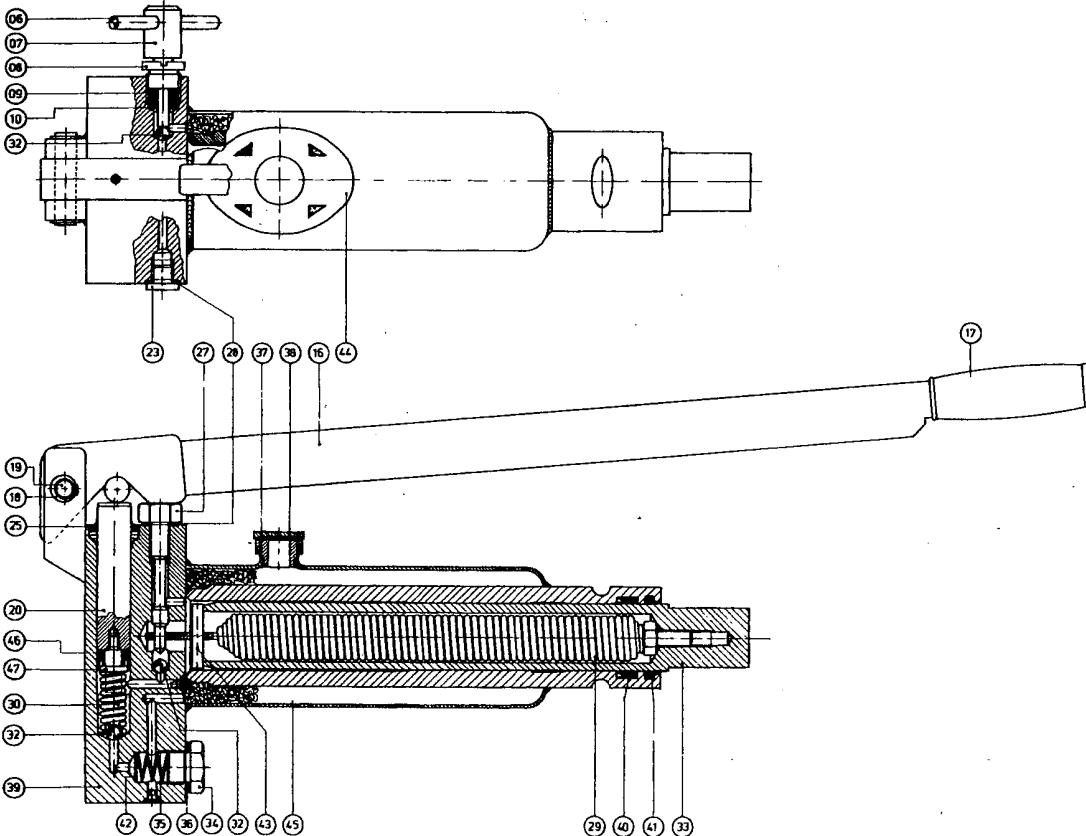
**Bending Formers**

Nominal Size	Outside Ø mm	Standard formers		Boiler tube		180 Deg. bends	
		Radius	Cat. No.	Radius	Cat. No.	Radius	Cat. No.
1/4	13.5	60	28286			130	22376
3/8	17.2	45	21806				
18	18	60	27816				
20	20	70	27826				
1/2	21.3	50	21816	110	22236	130	22386
22	22	80	27836				
25	25	115	22116				
3/4"	26.9	65	21826	137	22246	130	22396
28	28	70	35066				
30	30	140	22126				
32	32	140	22136				
1	33.7	100	21836	190	22256	130	22406
35	35	100	35076				
38	38	170	22146				
40	40	125	35086				
42	42	125	35096				
1 1/4"	42.4	130	21846	220	22266	130	22416
44.5	44.5	190	22156				
1 1/2	48.3	160	21856	220	22166	140	22426
50	50	140	35106				
51	51	220	22176				
57	57	250	22186				
2	60.3	220	21866	270	22196	190	28766
63.5	63.5	270	22206				
70	70	315	22216				
2 1/2	76.1	320	21876	420	22226		
3	88.9	380	21886				
4	114.3	600	28756				



DETAIL OF MAXIMUM PRESSURE VALVE ELECTRO-HYDRAULIC PUMPS

MAXIMUM PRESSURE 420 ATO



	pos. no.	Model 3801/3811	QTY	Model 3802/3812	QTY	Model 3813	QTY	Model 3814	QTY	Model 3801 E	QTY	Model 3802 E/3812 E	QTY	Model 3813 E	QTY	Model 3814 E	QTY	pos. no.
Screw	01									21256	4	21256	4	21256	4	28256	4	01
Covering cap	02									21266	1	21266	1	21266	1	21266	1	02
Screw	03									21276	4	21276	4	21276	4	21276	4	03
Driving case	04									21286	1	21286	1	21286	1	28736	1	04
Electro motor	05									See table	1	See table	1	See table	1	See table	1	05
Notch pin for relief spindle	06	21126	1	21126	1	21126	1	21126	1	21126	1	21126	1	21126	1	21126	1	06
Relief spindle	07	21116	1	21116	1	21116	1	21116	1	21116	1	21116	1	21116	1	21116	1	07
Ringnut for relief spindle	08	21106	1	21106	1	21106	1	21106	1	21106	1	21106	1	21106	1	21106	1	08
Rubber packing	09*	21096	1	21096	1	21096	1	21096	1	21096	1	21096	1	21096	1	21096	1	09
Copper bottom ring	10*	21086	2	21086	2	21086	2	21086	2	21086	2	21086	2	21086	2	21086	2	10
Screw	11									21376	1	21376	2	21376	2	21376	2	11
Safety ring	12									21386	1	21386	1	21386	1	21386	1	12
Lock nut	13									21396	1	21396	1	21396	1	21396	1	13
Ball bearing	14									21406	1	21406	1	21406	1	21406	1	14
Excentric	15									21416	1	21416	1	21416	1	28606	1	15
Hand lever	16	20846	1	20846	1	20846	1	28726	1									16
Handle	17	20836	1	20836	1	20836	1	20836	1	20836	1	20836	1	20836	1			17
Safety ring	18	21076	2	21076	2	21076	2	28746	2	21076	2	21076	2	21976	2			18
Notch pin	19	21066	1	21066	1	21066	1	28516	1	21066	1	21066	1	21066	1			19
Press ram	20	20866	1	20866	1	20866	1	28596	1	21466	1	21466	1	21466	1	21466	2	20
Press ram housing	21									21476	1	21476	1	21476	1	21476	2	21
Notch pin dia 4 x16	22									21486	1	21486	1	21486	1	21486	2	22
Terminal plug G 1/4"	23	20926	1	20926	1	20926	1	20926	1	20926	1	20926	1	20926	1	20926	2	23
Carrying yoke	24									21426	1	21426	1	21426	1			24
Scraper packing for press ram	25*	20856	1	20856	1	20856	1	28436	1	21506	1	21506	1	21506	1	21506	2	25
O-Ring	26*									21516	2	21516	2	21516	2	21516	4	26
Safety screw for pull spring	27	20916	1	20916	1	20916	1	28636	1	21526	1	21526	1	21526	1	28866	2	27
Joint ring PP 45 B	28*	20936	2	20936	2	20936	2	20936	2	20936	3	20936	3	20936	3	20936	4	28
Pull spring 1 1/4"	29	21166	1	21176	1	21176	1	28496	1	21166	1	21176	1	21176	1	28496	1	29
Push spring	30	20896	1	20896	1	20896	1	28476	1	21536	1	21536	1	21536	1	21536	2	30
Ball cone	31									21546	1	21546	1	21546	1	21546	2	31
Ball 5/16"	32	21556	3	21556	3	21556	3	21556	3	21556	4	21566	4	21556	4	21556	6	32
Ram 1 1/4"	33	21186	1	21196	1	21206	1	28586	1	21186	1	21196	1	21206	1	28586	1	33
Plug G 1/2"	34	21026	1	21026	1	21126	1	21026	1	21026	1	21026	1	21026	1	21026	1	34
Push spring for filter	35	21576	1	21576	1	21576	1	21576	1	21576	1	21576	1	21576	1	21576	1	35
Joint ring PP 45 D	36*	21036	1	21036	1	21306	1	21306	1	21306	1	21306	1	21306	1	21306	1	36
Filling cap	37	20946	1	20946	1	20946	1	20946	1	20946	1	20946	1	20946	1	20946	1	37
Cork packing for filling cap	38*	21586	1	21586	1	21586	1	21586	1	21586	1	21586	1	21586	1	21586	1	38
Pump body	39																	39
Packing 1 1/4"	40*	20996	1	21006	1	21016	1	28466	1	20996	1	21006	1	21016	1	28466	1	40
Scraper packing	41*	20966	1	20976	1	20986	1	28446	1	20966	1	20976	1	20986	1	28446	1	41
Filter	42	21056	1	21056	1	21056	1	21056	1	21056	1	21056	1	21056	1	21056	1	42
Pin for pull spring	43	21136	1	21146	1	21156	1	28556	1	21136	1	21146	1	21156	1	28556	1	43
Disc	44	21246	1	21246	1	21246	1	21246	1	21246	1	21246	1	21246	1	21246	1	44
Hydraulic fluid (2,5 l)	45	14061	1	14061	1	14061	1	14061	1	14061	1	14061	1	14061	1	14061	1	45
Press packing	46*	20876	1	20876	1	20876	1	20876	1									46
Pin for press packing	47	20886	1	20886	1	20886	1	20886	1									47
Plug for safety valve	48									28576	1	28576	1	28576	1	28576	1	48
Spring	49									28486	24	28486	24	28486	24	28486	24	49
Ballcone	50									28626	1	28626	1	28626	1	28626	1	50
O-ring	51*							28426	1							28426	1	51
Plug for ram 4"	52							28616	1							28616	1	52
Seal kits (includes items with*)		21906		21916		21926		33226		21936		21946		21956		33236		

Motor 110V 1Ø 28276  
230V 1Ø 21316  
400V 3Ø 21306

Capacitor 230V = 40µF 34306  
110V = 110µF 34316

Switch 110V ]1Ø  
230V ]3Ø  
400V ]3Ø

57786  
57776  
57766

Ref 33 diam 1 1/4" = 40mm 2" = 50mm 3" = 65mm 4" = 80mm

	<b>PART DESCRIPTION</b>	<b>CAT. NO.</b>
1	3801/3811 HYD. PUMP	28906
2	3802/3812 HYD. PUMP	28916
3	3813 HYD. PUMP	28926
4	3814 HYD. PUMP	28936
5	3801E 220V PUMP	28946
6	3801E 380V PUMP	28956
7	3802E/12E 220V PUMP	28966
8	3802E/12E 380V PUMP	28976
9	3813E 220V PUMP	29986
10	3813E 380V PUMP	28996
11	3814E 380V PUMP	29106
12	STROKE ADJ.3814E 380V	29116
13	STROKE ADJ.3814E 220V	29126
14	FORMER 1/2-90 F/REFIX	30746
15	CORNER SUPPORT F. 3811	21966
16	CORNER SUPPORT F. 3801	21976
17	CORNER SUPPORT F. 3812	21986
18	CORNER SUPPORT F. 3802	21996
19	CORNER SUPPORT F. 3813	22006
20	CORNER SUPPORT F. 3814E/2"	28776
21	CORNER SUPPORT F/3814E/4"	28786
22	FIXING PIN F. 3811	22016
23	FIXING PIN F. 3801	22026
24	FIXING PIN F. 3812	22036
25	FIXING PIN F. 3802	22046
26	FIXING PIN FOR 3813	22056
27	EXTENSION F/3"	27696
28	MOTOR 1,4KW-110V-1PHASE	28276
29	3812 BENDER ONLY	18851
30	3812 BEND F/PVC COAT. PIPE	18861
31	3801 BENDING FRAME	28796
32	3811 BENDING FRAME	27846
33	3812 BENDING FRAME	28806
34	3802 BENDING FRAME	28816
35	3813 BENDING FRAME	28826
36	3814 BENDING FRAME	28836
37	3811S SLIDING FRAME ONLY	39986
38	3812S SLIDING FRAME ONLY	39996
39	233E SPEC. OPEN FRAME 2"	40566
40	3801/3811 WOODEN CASE	28846
41	3802/3812 WOODEN CASE	28856
42	3813 WOODEN CASE	28866
43	3801E/02E/12E WOODEN CASE	28876
44	3813E WOODEN CASE	28886
45	3814E WOODEN CASE	28896
46	MOTOR SWITCH ASS CE 400V	57766
47	MOTOR SWITCH ASS CE 230V	57776
48	MOTOR SWITCH ASS CE 110V	57786
49	CLIP 1 1/4" BENDER	21216
50	CLIP 2" BENDER	21226
51	CLIP 3" BENDER	21236
52	STROKE ADJ. 110 VOLT	34916