

Model Shown:

PE55TWP, PE55TWP-4



Features

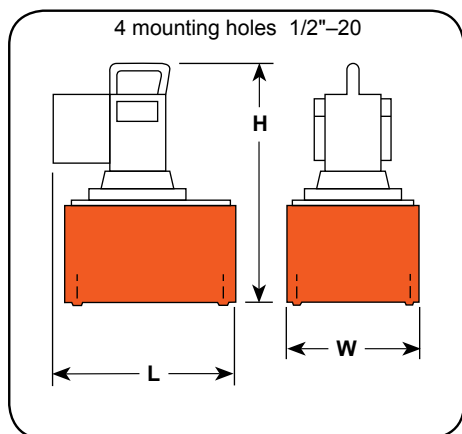
VANGUARD® ELECTRIC HYDRAULIC TORQUE WRENCH PUMPS.

- Two-speed high-performance pump.
- External adjustable pressure regulator
- Retract side internal relief valve protects tool.
- Hand remote control with 6,1 m. cord.
- Use for single or double-acting tools.
- Four-tool manifold allows use of up to four tools simultaneously.



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.



Ordering Information

Order No.	Width (mm)	Length (mm)	Height (mm)	Electric Motor (12000 rpm)	Oil Delivery (l/min.)	Oil Reservoir Cap. (l)	Usable Oil (l)	Prod. Wt. (kg)
PE55TWP	435	241	460	0,84 Kw		9,5	8,4	34,0
PE55TWP-E110*	470	241	460	110V / 50Hz, 25 amps	11,5 @ 7 bar 0,9 @ 700 Bar	9,5	8,4	34,0
PE55TWP-E220*	470	241	460	220V / 50Hz, 13 amps		9,5	8,4	34,0
PE55TWP-4	470	241	486	0,84 Kw		9,5	8,4	35,4
PE55TWP-4-E110*	470	241	486	110V / 50Hz, 25 amps	11,5 @ 7 bar 0,9 @ 700 Bar	9,5	8,4	35,4
PE55TWP-4-E220*	470	241	486	220V / 50Hz, 13 amps		9,5	8,4	35,4

* CE Approved - designed for 50 Hz applications

Model Shown:
RWP55-4



Features

AIR HYDRAULIC TORQUE WRENCH PUMP

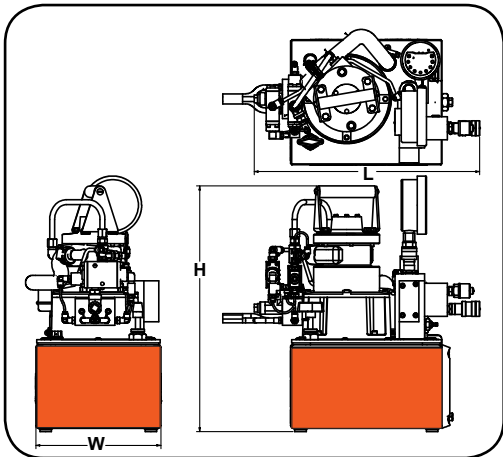
- Use where air is the preferred source of power.
- Powerful 2,2 Kw motor starts under load.
- External adjustable pressure regulator.
- Retract side internal relief valve protects tools.
- Use for single or double-acting tools.
- Four-tool manifold allows use of up to four tools simultaneously.
- 7,6 m. pneumatic remote controller included.



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.

Tools



Ordering Information

Order No.	Width (mm)	Length (mm)	Height (mm)	Air Motor	Oil Delivery (l/min.)	Oil Reservoir Cap. (l)	Usable Oil (l)	Prod. Wt. (kg)
RWP55	450	280	483	2,25 Kw, 1,4 m ³ @ 6 bar	7,6 @ 7 Bar 0,9 @ 700 Bar	9,5	8,4	44
RWP55-4 (4-TOOL MANIFOLD)	450	280	483	2,25 Kw, 1,4 m ³ @ 6 bar	7,6 @ 7 Bar 0,9 @ 700 Bar	9,5	8,4	44

Model Shown:

HNS150, HNS150A, HNS225

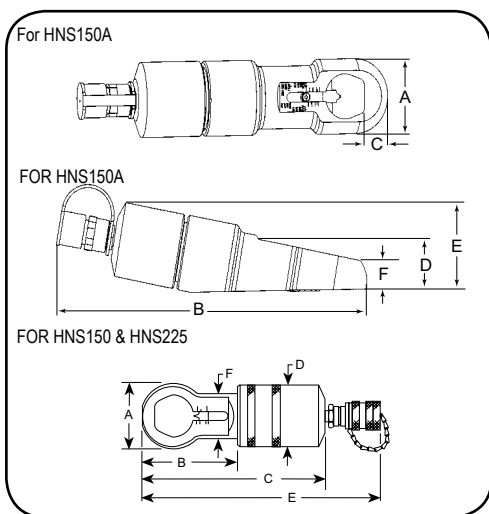


Features

HYDRAULIC NUT SPLITTERS

- Specially designed “tool steel” cutter blade penetrates the nut to the precise point where it cracks, stopping short of the bolt threads.
- Dial-in” feature on HNS150 makes adjustment of splitter simple, without the worry of damaging the bolt.
- Nut splitter features a dramatically improved cutter blade with an 800% greater resistance to chipping and breaking over previous models.
- Compact size allows you to use it in confined areas where it will deliver enough force to split the toughest “fused” or rusted-on grade 2H nuts.
- All models feature a rugged one-piece cutting frame coupled to a heavy-duty hydraulic cylinder.

▶ **Align mark on cutter blade with scale.**



▶ **Ordering Information**

Order No.	A	B	C	D	E	F	Head Thickness	Replacement Blade	Prod. Wt.
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
HNS150	73	86	200	70	264	53	25,4	308840	3,7
HNS150A	77	361	27	54	94	30	25,4	351985	7,2
HNS225	108	153	366	99	—	82	38,1	308022	13,2

NUT GRADE CAPACITIES

Order No.	2 or A	5 or B	8 or C	2DRH
HNS150	12,7 - 38,1 mm hex	12,7 - 38,1 mm hex	12,7 - 33 mm hex	12,7 - 29 mm hex
HNS150A	12,7 - 36 mm hex	12,7 - 36 mm hex	12,7 - 33 mm hex	12,7 - 29 mm hex
HNS225	29 - 57 mm hex	54 - 57 mm hex	29 - 55 mm hex	29 - 43 mm hex

Model Shown:

FLS15, FLS15-ST

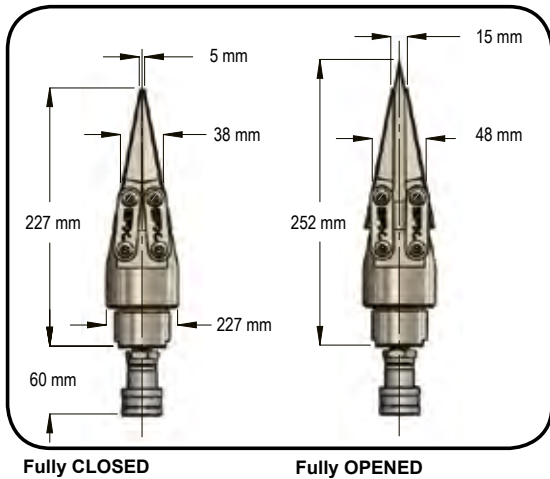


Features

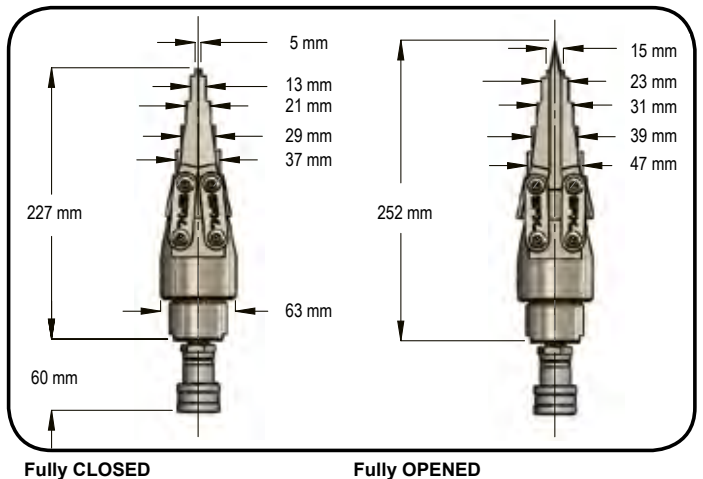
INTEGRATED WEDGE CONCEPT IDEAL FOR CREATING SPACE FOR FLANGE SURFACE CLEANING AND REPAIR

- 15 Metric Ton wedge-driven spreader. Jaws fully supported by wedge for excellent durability.
- Low friction provided by heavy-duty extended-life lubricant, ideal for flanges with narrow gaps (only 5 mm required for entry).
- Compact and lightweight design (only 252 mm long at a weight of 3,2 kg).
- Ergonomically balanced handle included.
- Suitable for the offshore environment due to superior corrosion resistance
- Quick adjustments for various tasks due to interchangeable shoes (both stepped and serrated)
- Easy and quick maintenance without special tools required.
- Includes female half coupler & mates to standard 3/8" male half coupler (9798).

FLS15 Spreader



FLS15-ST Spreader



Tools

Order No.	Maximum Spreading Force	Minimum Tip Clearance (mm)	Maximum Tip Spread (mm)	Spreader Type	Oil Cap. (cm ³)	Maximum Operating Pressure (bar)	Prod. Weight (kg)
FLS15	15 ton	5	10 mm pro hub	Hydraulic	16	700	3,2
FLS15-ST							



Features


TYPICAL APPLICATIONS:

- Pipe and flange repair
- Removing elbows
- Couplers & gasket and metal seal replacement
- Heavy equipment maintenance


OTHER OPTIONAL ACCESSORIES


HANDLE		
	Order No.	Description
	2008410	Lightweight spreaders handle is designed for use with FLS15 or FLS15-ST. Wt., 55 g.


STEPPED BLOCK		
	Order No.	Description
	SB15	Use to increase the wedge opening. Designed to use with FLS15 or FLS15-ST. (1 piece).



STEPPED SHOE		
	Order No.	Description
	2008083*	Lightweight spreader stepped shoe with an interlocking friction-free smooth, parallel wedge design. Wt. 290 g.

SERRATED SHOE		
	Order No.	Description
	2008082*	Lightweight spreader serrated shoe. Part number is for one shoe only. Two shoes required per spreader.

PUMP		
	Order No.	Description
	P19L	Two-speed, single-acting hand pump . 0,5 l oil capacity. Wt. 2,3 kg.

HOSE		
	Order No.	Description
	9764E	Hydraulic hose assembly.

ANALOG GAUGE		
	Order No.	Description
	9040E	Pressure gauge.

COUPLER & GAUGE ADAPTER		
	Order No.	Description
	9798	Male half coupler.
	9670	Gauge adapter

*

Tools

Model Shown:
HFS3A



▶ **HFS6AP59L** spreader offers up to 10 tons of spreading force to safely separate this flange.



Features

CONTROLLED AND GUIDED FLANGE SEPARATION TOOL

- You'll never again have to resort to "hammer and chisel" methods that waste time and effort. Flange spreaders should be used in pairs to provide even spreading force.
- Use HFS3A for applications where total thickness of flanges and max. spread gap is 76,2 mm or less, and flange bolts are a min. of 17,5 mm diameter.
- Use HFS6A if total thickness of flanges and max. spread gap is 152,6 mm or less, and flange bolts are a min. of 20,7 mm diameter.



Optional Wedge Ends

Standard 60° wedge is suitable for most flanges; 30° "thin" and 60° "blunt" wedges are optional.



350823



350822



350549



350550

▶ **Ordering Information**

Order No.	Cap. (ton)	Standard Wedge Type	Optional Wedges		Min. Flange Opening			Min. Flange Opening			Min. Combined Flange Opening (mm)	Pin Dia. (mm)	Prod. Wt. (kg)
			30° Thin	60° Blunt	60° Std.	60° Blunt	30°	60° Std.	60° Blunt	30°			
					(mm)	(mm)	(mm)	(mm)	(mm)	(mm)			
HFS3A	5	60° Sharp	350823	350822	1,6	25,4	1,6	38,1	38,1	18,3	76,2	17,4	4,1
HFS6A	10	60° Sharp	350549	350550	1,6	38,1	1,6	50,8	50,8	24,6	152,4	20,6	8,2

Model Shown:

HS2000, HS3000



Features

HYDRAULIC SPREADERS OFFER A GREATER FORCE THAN TRADITIONAL MECHANICAL TOOLS.

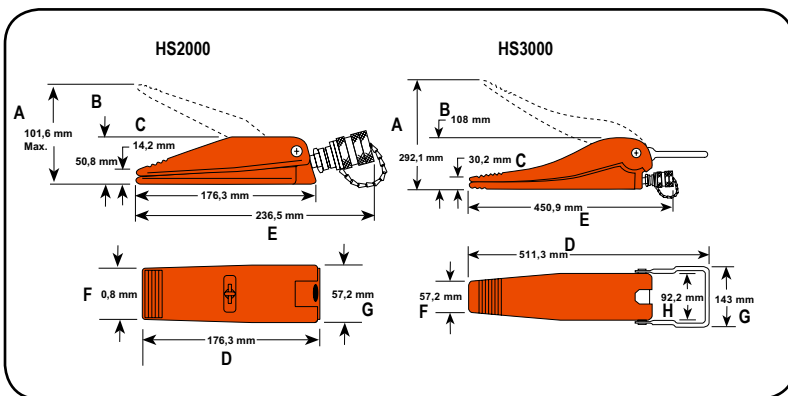
- Use to lift machines to spread concrete forms or rebar and perform straightening jobs.
- Conforms to ASME B30.1 standard.
- High strength alloy steel forged upper and lower jaws on HS2000.
- Jaws are spring-return to retract automatically when pressure is released.

HS2000 (FORGED STEEL)

- 1 ton capacity spreader, full 908 kg capacity at 700 bar with 102 mm spread.
- Can be “dead-ended” at 102 mm spread under full load.
- Needs only 14,2 mm clearance to engage jaws.

HS3000 (HIGH GRADE DUCTILE IRON)

- 1.5 ton capacity spreader, full 1362 kg capacity at 700 bar. with 292 mm spread.
- Needs only 30,2 mm clearance to engage jaws.
- Can be “dead-ended” at 292 mm spread at full load.



Ordering Information

Order No.	Cap. (ton)	Max. Spread (mm)	A	B	C	D	E	F	G	H	Oil Cap. (cm ³)	Min. Clearance Required (mm)	Prod. Wt. (kg)
			(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				
HS2000	1,0	101,6	101,6	50,4	14,3	252,5	236,5	50,8	176,0	57,0	4	14,2	2,2
HS3000	1,5	292,0	292,0	108,0	30,2	—	451,0	57,2	511,0	143,0	92	30,2	10,0

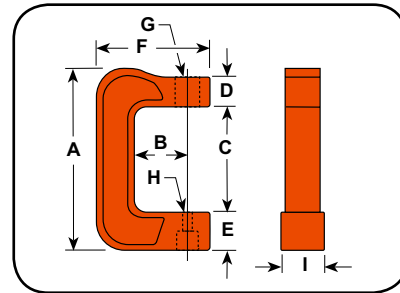
Model Shown:
CC10



Features

- In 5, 10 and 25 ton capacities. For use with Power Team general purpose single-acting series cylinders of comparable capacity.
- For clamping, pressing and bending. Ideal for welding and metal fabrication for fit-up of sheet or plate steel.
- Clamps withstand full rated capacity of the cylinders for which they are intended.

Note: To minimize the effects of off-center loading, the CC5, CC10 and CC25 should be used with the optional 350144 and 350145 swivel caps.



Ordering Information

Order No.	Cap. (ton)	A	B	C	D	E	F	G	H	I	Use With Cyl. No.	Prod. Wt. (kg)
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(in.)	(mm)	(mm)		
CC5	5	314,0	95,3	186,0	50,8	63,5	197,0	1 1/2" - 16 UN	22,2	76,2	C51C-C57C	11,3
CC10	10	403,0	152,4	240,0	50,8	85,8	273,0	2 1/4" - 14 UNS	22,2	88,9	C101C-C1010C	20,9
CC25	25	533,0	152,4	319,0	76,2	117,3	313,0	3 5/16" - 12 UNS	36,5	117,5	C251C-C2514C	41,3

OTHER OPTIONAL ACCESSORIES WITH CC5, CC10 & CC25 HYDRAULIC CLAMPS

SWIVEL CAPS

	Order No.	Cap. (ton)	A (mm)	B (mm)
	350144 *	5 - 10	35,0	19,0
	350145	25	50,8	25,4

PUSHING ADAPTERS

	Order No.	Cap. (ton)	A (mm)	B (in.)	C (mm)
	28228**	10	60,3	1 - 8	38,1
	28229**	25	73,0	1 1/4 - 7	44,5

THREADED ADAPTERS

	Order No.	Cap. (ton)	A (in.)	B (in.)	C (mm)	D (mm)
	38597	10	1 - 8	1 - 8	19,0	50,8
	38953	25	1.5-16	1 1/4 - 7	70,0	111,0

PUSHING ADAPTERS

	Order No.	Cap. (ton)	A (mm)	B (mm)	C (mm)	D (mm)	E (in.)
	201923**	10	79,4	57,2	136,5	12,7	1 - 8
	34510**	25	82,6	66,7	149,0	19,0	1 1/4 - 7

V PUSHING ADAPTERS

	Order No.	Cap. (ton)	A (mm)	B (in.)	C (mm)	D (mm)
	34806**	10	66,7	1 - 8	38,1	25,4
	34807**	25	79,4	1 1/4 - 7	44,5	31,8

PUSHING ADAPTERS

	Order No.	Cap. (ton)	A (mm)	B (mm)	C (mm)	D (mm)	E (in.)
	201454**	10	79,4	57,2	137,0	19,0	1 - 8
	34511**	25	82,6	66,7	149,0	25,4	1 1/4 - 7

* May be used with CC5

** Must be used with a threaded adapter.

PUSHING ADAPTERS

	Order No.	Cap. (ton)	A (mm)	B (mm)	C (mm)
	309874*	5	51,6	562,8	15,9

Model Shown:
BB1600



Features

TIRE REMOVING TOOL

- Made to fit into the pry bar pocket
- Hydraulic pressure does all the unseating.
- Lightweight and portable.



Recommended Products



P59L hydraulic hand pump and 9764E hose recommended to be used with BB1600.

- ▶ **BB1600 bead breaker and the P59L hand pump is the perfect choice for this tire removal application.**



Ordering Information

Order No.	Cylinder Capacity (@ 700 Bar)	Stroke (mm)	Rim Size (in.)	Prod. Wt. (kg)
BB1600	10	101,6	25" - 49"	10,3
BB1601	10	101,6	25" - 49"	10,9

For use with single, two, or three-piece rims

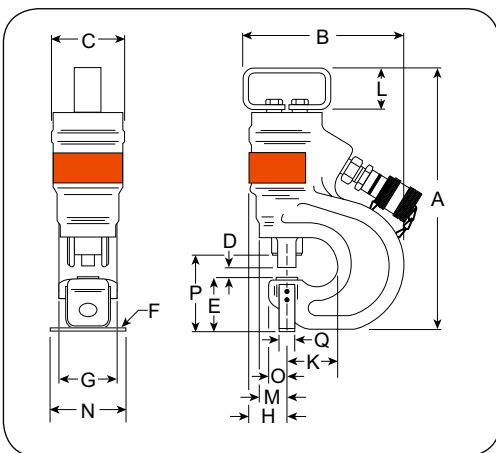
Model Shown:
HP35S



Features

- Punch smooth, precise holes in seconds. Much faster than drilling.
- Fully portable for construction, maintenance and service applications, or can be mounted on a workbench for production jobs.
- Has carrying handle for precise locating.
- Rugged, forged steel C-Frame for great strength and durability.
- Dual-action, spring-loaded stripper holds material during punching operation, strips material from punch on return. Scribe lines on stripper aid in locating the punch.

Tools



Recommended Products

The PE172 electric/hydraulic pump is an ideal power source, which is included in item # HP35SP.

Technical Dimensions

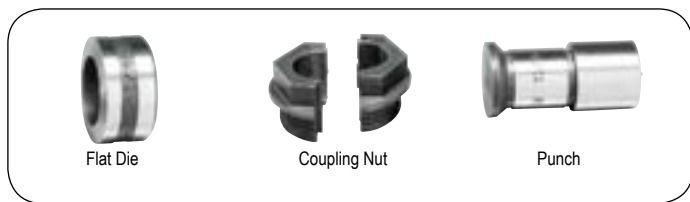
Order No.	Cap. (ton)	Max. Oper. Press. (bar)	Oil Cap. (cm ³)	Max. Material Thickness (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	P (mm)	Q (mm)
HP35	35	700	75	12,7	349	229	95	15	73	6	76	46	71	57	38	89	22	102	19

Model Shown:
HP35SP



► **Ordering Information**

Order No.	Description	Prod. Wt. (kg)
HP35	Punch only, includes metal case and die change tools.	19
HP35S	Punch with punches and dies. Includes HP35 punch, metal case and 250459 punch/die set.	20
HP35P-220	Punch set with pump. Same as HP35SP, but does not include punch/die set.	39
HP35SP-220	Punch set with pump. Includes HP35 punch, PE172-E220 electric/hydraulic pump, 9756E hose, 9798 hose half coupler, 250459 punch/die set, metal case.	40
250459	Punch/die set for round holes. Includes one each: PD437 11,1 mm punch/die, PD562 14,3 mm punch/die, PD688 17,5 mm punch/die, PD812 20,6 mm punch/die.	0,7



Optional Coupling Nut Wrench

	Order No.	Description
	252000	Makes punch/die changes easier without "rounding-off" coupling nuts. Wt., 0,3 kg.

PUNCH / DIE SETS FOR HP35 HYDRAULIC PUNCHES

Punch Size (mm)	Punch Style	Hole Dia. (mm)	Punch with Flat Die Set	Punch with Bevel Die Set
6,4	○ Round	6,4	—	—
7,9		7,9	PD313	—
9,7		9,7	PD375	PD375B
11,2		11,2	PD437	PD437B
13,5		13,5	PD531	PD531B
14,2		14,2	PD562	PD562B
17,5		17,5	PD688	—
19,8		19,8	PD781	—
20,6		20,6	PD812	—

Model Shown:

HT50A, HT200



Features

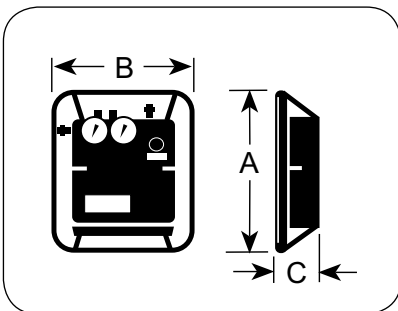
300 AND 750 L/MIN IN-LINE HYDRAULIC TESTERS

- Accurately measure oil flow, pressure and temperature on in-plant equipment, forklifts, machine tools and more.
- Temperature and flow readings are in Imperial and Metric and accurate to within $\pm 2\%$ of full scale.
- Dual pressure gauges for high and low pressure readings. Low pressure gauge is automatically shut-off and protected as pressure rises beyond its maximum reading.
- Automatic pressure compensating feature lets you increase flow without affecting pressure setting.
- Reverse flow through tester will not cause damage. A replaceable safety disc ruptures if pressure exceeds upper limit.
- Solid state voltage regulator eliminates errors caused by voltage change during testing.

200 L/MIN IN-LINE HYDRAULIC TESTER

- Troubleshoots systems with capacities to 200 l/min at pressures less than 350 bar. Accurately measure oil flow to $\pm 5\%$, pressure to within 2% and temperature readings within 1%.
- Pressure gauge is liquid filled to dampen system pulsation.

Tools



Ordering Information

Order No.	Max. Flow (l/min.)	Scale	Flow Range		Max. Oper. Press. (bar)	Temp. Scale Range (°C)	Port Sizes	A	B	C	Prod. Wt. (kg)
			(gpm)	(l/min.)				(mm)	(mm)	(mm)	
HT50A	200	—	0 - 50	0 - 200	345	-6 - 114	1-1/16-12UN Female O-Ring with Union Adapt 3/4" NPTF female.	311	159	255	16,8
HT75	300	High	15 - 75	50 - 300	345	40 - 120	3/4" NPT Swivel	349,3	301,6	146,0	8,6
		Low	3 - 15	10 - 60							
HT200	750	High	25 - 200	100 - 750	345	40 - 120	1 1/2" SAE Split Flange	403,5	336,6	171,5	13,6
		Low	5 - 40	20 - 150							

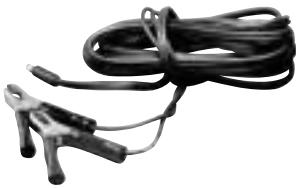
DUAL GAUGE CONVERSION KIT FOR 50 GPM TESTER.



Provides more precise low pressure readings. Remove pressure gauge block and gauge from tester and replace it with this block. Install high pressure gauge from tester (350 bar) onto this new block.

Order No.	Description
307281	Dual gauge conversion kit. Consists of gauge mounting block, pulsation dampener, thermal overload protector, low pressure gauge and gauge protector. Low pressure gauge calibrated 0-42 bar. Wt. 0,45 kg.

AUXILIARY POWER CORDS FOR USE WITH 300 AND 750 L/MIN TESTERS



CAUTION: For use on negative ground systems only.

Order No.	Description
37045	Auxiliary power cord. For use with any 12 or 24V battery to remotely power tester. Wt. 0,5 kg.

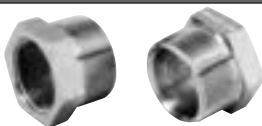
HOSES



Order No.	Description
9785	Hose, 19,1 mm I.D. x 3/4" NPTF male both ends. 3 m. length. 155 bar working pressure. (2 req'd on 200 and 300 l/min testers). Wt., 3 kg.
9786 *	Hose, 25,4 mm I.D. x 1-1/4" NPT male both ends. Recommended max. flow 340 l/min., with a working pressure of 280 bar. Wt., 6,3 kg.
9787 *	Hose, 31,8 mm I.D. x 1-1/4" NPT male both ends. Recommended max. flow 530 l/min., with a working pressure of 210 bar. Wt., 6,4 kg.
9788 *	Hose, 38,1 mm I.D. x 1-1/2" NPT male both ends. Recommended max. flow 750 l/min., with a working pressure of 175 bar. Wt., 11,4 kg.

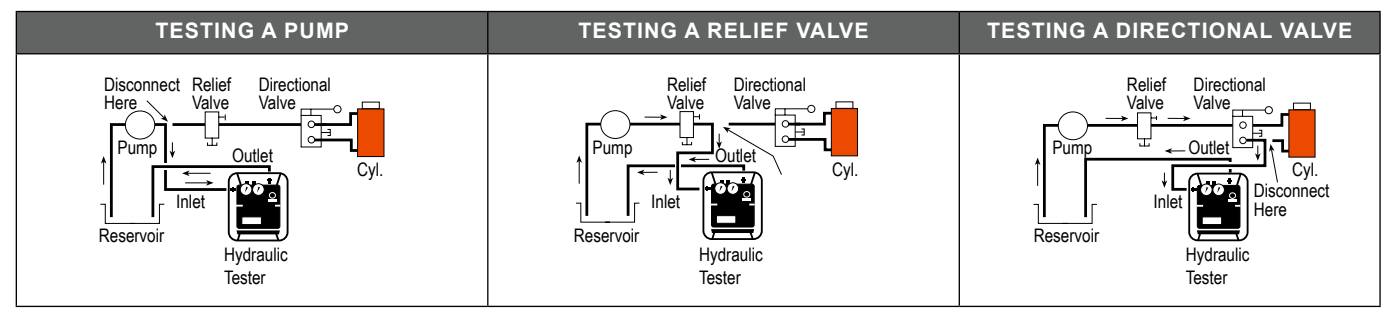
* Hose assemblies are all 4-ply spiral wound wire, 10 ft. long. For use with 200 gpm testers.

HOSE REDUCER BUSHINGS



Order No.	Description
203264	Consists of two hose reducer bushings, 1-1/4" NPT female x 1-1/2" NPT male end. Needed to adapt 9786 25,4 mm I.D. hose and 9787 31,8 mm I.D. hose to tester. Wt., 1 kg.

Typical Set-up: Testing the pump, relief valve, and directional valve



HYDRAULIC FITTINGS FOR USE WITH ALL TESTERS.

	16954	90° Swivel Adapter. 3/4" NPTF male x 3/4" NPSM female. Wt., 0,4 kg.		26073	Swivel adapter. 3/4" NPTF female x 1/2" NPSM female. Wt., 0,1 kg.
	22041	Coupler. 3/4" NPTF male x 3/4"-16 female ORB. Wt., 0,2 kg.		26074	45° Swivel Adapter. 3/4" NPSM female x 3/4" NPTF male. Wt., 0,3 kg.
	22042	Coupler. 3/4" -16 female ORB x 1-1/16"-12 female 37° JIC. Wt., 0,2 kg.		26075	Swivel Adapter. 3/4" NPSM female x 3/4" NPTF female. Wt., 0,2 kg.
	22043	Coupler. 3/4" -16 female ORB x 9/16"-18 female 37° JIC. Wt., 0,2 kg.		26076	Swivel Adapter. 3/4" NPTF male x 3/4" NPSM female. Wt., 0,2 kg.
	22044	Coupler. 3/4" -16 female ORB x 1/2"- 20 female 37° JIC. Wt., 0,2 kg.		26077	Cap. 3/4" NPTF. Wt., 0,3 kg.
	27737	Swivel Adapter. 3/4" -16 male x 3/4" NPSM female. For use with No. 9785 hose, which has 3/4" NPTF male thread. Wt., 0,1 kg.		26078	Plug. 3/4" NPTF. Wt., 0,1 kg.
	27287	Coupler. 3/4" -16 UNF female ORB x 7/8"-14 UNF female 37° JIC. Wt., 0,2 kg.		26079	Adapter. 3/4" NPTF female x 1-1/16" -12 male ORB. Wt., 0,2 kg.
	13449	Cap. 1-1/16"-12 UNF female, 3/4" O.D. tube, 37° flare. Wt., 0,1 kg.		208402	45° Union Adapter. 7/8"-14 UNF male 37° JIC x 3/4" NPTF female. 3,000 psi working pressure. Wt., 0,3 kg.
	26068	45° Swivel Adapter. 1" NPTF male x 3/4" NPSM female. Wt., 0,4 kg.		208401	45° Union Adapter. 7/8"-14 UNF male 37° JIC x 3/4" NPTF female. Wt., 0,4 kg.
	26069	Swivel Adapter. 1" NPTF female x 3/4" NPSM female. Wt., 0,2 kg.		206753	Coupler. 1-15/16"-12 UNF female 37° JIC x 3/4" NPTF female. Wt., 0,5 kgs.
	26070	Adapter. 1" NPTF male x 3/4" NPTF female. Wt., 0,1 kg.		26666	Connector. 1-5/16"-12 UNF male 37° JIC x 3/4" NPTF male. Wt., 0,2 kg.
	26071	Service Tee. 3/4" NPTF female (2) x 3/4" NPTF male. Wt., 0,4 kg.		28984	Straight Adapter. 3/4" NPTF female x 1-3/16" -12 UN male 37° JIC. Wt., 0,3 kg.
	26072	Swivel Adapter. 3/4" NPSM female x 1/2" NPTF male. Wt., 0,2 kg.		28985	Straight Adapter Union. 1-3/16"-12 UN female 37° JIC x 3/4" NPTF female. Wt., 0,6 kgs.

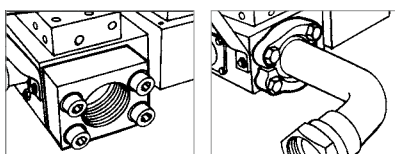
NOTE: The recommended maximum working pressure on the above fittings is 350 bar (except the 208402 is 210 bar).

HT200 HYDRAULIC TESTER ACCESSORIES

Attach to the HT200 hydraulic tester by the use of flanged-head adapters and split flanges, or by a set of female straight adapters.



FLANGED HEAD ADAPTER UNIONS & SPLIT FLANGE KIT	
Order No.	Description
203154	Straight flange adapter. 38,1 mm flanged-head to 1-1/2" NPSM female swivel. Wt., 1 kg.
203155	45° flange adapter. 38,1 mm flanged-head by 1-1/2" NPSM female swivel. Wt., 1,5 kg.
203156	90° flange adapter. 38,1 mm flanged-head by 1-1/2" NPSM female swivel. Wt., 1,9 kg.
203017	Split Flange Kit. Consists of four flange halves and attaching bolts to permit use of 38,1 mm I.D. flange adapters listed at left. Wt., 1,3 kg.



FEMALE STRAIGHT FLANGE ADAPTER	
Order No.	Description
203003	Consists of two female straight flange adapters with attaching bolts. When attached to inlet/outlet ports, allows connection of 1-1/2" NPT male hose ends to tester. Wt., 3,9 kg.

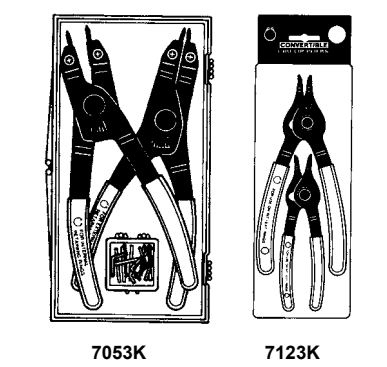
HORSESHOE LOCK RING PLIER



For removing horseshoe lock rings used on hydraulic brakes, differentials, etc. Plier is 203 mm long; max. spread: 23,8 mm

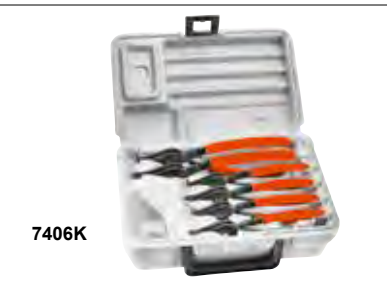
Order No.	Description
714	Horseshoe lock ring plier. Wt., 0,2 kg.
7313	External snap ring plier easily removes snap rings used to retain bearings on shafts. Max. spread: 27 mm.

RETAINING RING PLIER KITS



Choose from four sets; internal ring, external ring and convertible pliers for either internal or external rings.

Order No.	Description
7053K	Replaceable tip pliers kit. This versatile kit contains (1) internal and (1) external pliers with (8) tip sets. Two sets each: 0,9 mm dia. 90° bend, 1,2 mm dia. straight, 1,2 mm dia. 90° bend, 1,8 mm dia. straight. Recommended for 6,4 - 51 mm rings. Packaged in plastic storage case. Wt., 0,4 kg.
15702	Replaceable tip kit (only) for 7053K.
7123K	Convertible pliers kit. Contains 1120 (1 mm dia./straight tip) and No. 1340 (1,8 mm dia./straight tip). Each pliers "converts" to handle both internal and external rings. Packaged in a reusable plastic storage case. Wt., 0,4 kg.
7125K	Convertible pliers kit. Contains 1125 (.038" dia./45° bent tip) and No. 1345 (.070" dia./45° bent tip). Each pliers "converts" to handle both internal and external rings. Packaged in a reusable plastic storage case. Wt., 0,4 kg.



Order No.	Description
7406K	Professional pliers kit. Contains (6) retaining convertible pliers to handle both internal and external rings from 6,4 - 51 mm. Includes straight and 90° off-set pliers with 1, 1,2, and 1,8 mm tip diameters. Includes Nos. 1120, 1131, 1320, 1329, 1340 and 1349. Packaged in an impact resistant storage case. Wt., 0,9 kg.

REPLACEMENT TIPS FOR 7300 AND 7301 PLIERS

Order No.	Description
209201	Replacement tips (pr.) for the 7300 and 7301 pliers. Wt., 0,1 kg. Fed. Spec.:GGG-P-480

RETAINING RING PLIERS SELECTION GUIDE

Order No.	Type of Pliers	Tip Bend	Tip Size Dia. (mm)	For Internal Rings † Bore Dia. (mm)	For External Rings † Shaft Dia. (mm)	Order No.	Type of Pliers	Tip Bend	Tip Size Dia. (mm)	For Internal Rings † Bore Dia. (mm)	For External Rings † Shaft Dia. (mm)
0100	Internal	Str.	1	9,5 - 26	—	1120	Convertible	Str.	1	9,5 - 14	6,4 - 17
0200	External	Str.	1	—	6,4 - 22	1125*	Convertible	45°	1	9,5 - 14	6,4 - 17
0300	Internal	Str.	1,8	27 - 44,5	—	1131**	Convertible	90°	1	9,5 - 14	6,4 - 17
0400	External	Str.	1,8	—	24 - 36,5	1320	Convertible	Str.	1,2	16 - 26	17 - 22
0500	Internal	Str.	2,3	46 - 89	—	1329	Convertible	90°	1,2	16 - 26	17 - 22
0600	External	Str.	2,9	—	38 - 89	1340	Convertible	Str.	1,8	27 - 44,5	24 - 36,5
7300	Internal	Str.	3	78 - 152	—	1345*	Convertible	45°	1,8	27 - 44,5	24 - 36,5
7301	External	Str.	3	—	38 - 165	1349**	Convertible	90°	1,8	27 - 44,5	24 - 36,5

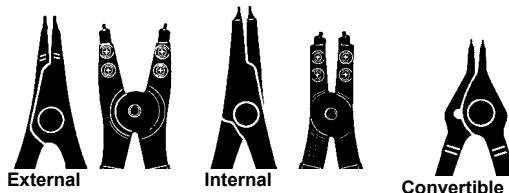
Fed. Spec.:GGG-P-480-E

* 45° Angled Tips



** 90° Angled Tips

† Capacities are shown for basic style rings.



CAUTION: Always wear safety goggles when using pliers




RATCHETING CHAIN WRENCHES

	Special head design allows you to turn wrench in either direction. Ratcheting action makes it possible to re-grip without removal. Fits parts of most any size and shape.	
	Order No.	Description
7400	Chain wrench, cap. 12,7 to 121 mm O.D. (Capacity= 450 Nm.) Handle length: 317,5 mm. Wt., 0,9 kg.	
	209199	Replacement chain with pin for 7400 chain wrench (406 mm long).
	7401	Chain wrench, cap. 76 to 171 mm O.D. (Capacity= 900 Nm) Handle length: 19.00" Wt., 2,3 kg.
	209200	Replacement chain with pin for 7401 chain wrench (610 mm long).


PRY BARS

	Our rolling head pry bars are an extremely popular and useful tool. Head may be used for almost any prying job since a great deal of leverage can be obtained. Long tapered body may be used as a lining-up drift.	
	Order No.	Description
7162	Pry bar; 9,5 mm round, 152 mm long. Wt., 0,1 kg.	
	7163	Pry bar; 11,1 mm round, 305 mm long. Wt., 0,3 kg.
	7164	Pry bar; 14,3 mm round, 406 mm long. Wt., 0,5 kgs.
	7165	Pry bar; 19 mm round, 457 mm long. Wt., 1 kg.


ADJUSTABLE GLAND NUT WRENCH

	Designed to handle 51 to 152 mm dia. hydraulic cylinder gland nuts on many construction vehicles. Fits 6,4 and 7,9 mm dia. pin holes. Features a 3/4" sq. drive.	
	Order No.	Description
1266	Adjustable gland nut wrench. Wt., 1,4 kg.	
204928	Replacement pin for 1266 (2 required)	


JIMMY BARS

	Ideal for general lifting or prying. Heat treated chrome alloy steel to resist bending or breaking.	
	Order No.	Description
7166	Jimmy bar; 15,9 mm round, 457 mm long. Wt., 0,6 kg.	
7167	Jimmy bar; 19 mm round, 610 mm long. Wt., 1,1 kg.	
7168	Jimmy bar; 22,2 mm round, 762 mm long. Wt., 1 kg.	


ADJUSTABLE HOOK SPANNER WRENCH

	Needed wherever turret adjusting nuts or packing gland nuts are used. Adjust 38 to 102 mm. Handle overall length: 483 mm.	
	Order No.	Description
885	Adjustable hook spanner wrench. Wt., 1,4 kg.	

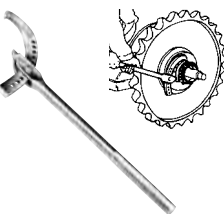
"MAJOR PERSUADER" JIMMY BARS

	Two big jimmy bars for big jobs. Forged from chrome alloy steel.	
	Order No.	Description
7420	Jimmy bar; 22,2 mm round, 1168 mm long. Wt., 3,4 kg.	
7421	Jimmy bar; 25,4 mm round, 1372 mm long. Wt., 1,9 kg.	

ADJUSTABLE HOOK SPANNER WRENCH

	Replace many fixed-size wrenches and cover a range of capacities needed to service industrial tractors and other equipment. Drop-forged jaws adjust to eleven positions for a capacity of 121 to 324 mm O.D. Handle overall length: 610 mm; diameter: 25,4 mm.	
	Order No.	Description
7307	Spanner wrench with one 9,5 mm thick jaw. Wt., 3,3 kg.	
7308	Spanner wrench with two interchangeable jaws: one 9,5 mm thick, one 19 mm thick. Wt., 5 kg.	

HEAVY-DUTY ADJUSTABLE SPANNER

	Extra heavy construction. Has one 19 mm thick, eleven-position hook-jaw for a capacity of 131 to 324 mm O.D. Drop-forged. Handle length: 654 mm; handle dia.: 33,3 mm.	
	Order No.	Description
7309	Heavy-duty adjustable hook spanner wrench. Wt., 5 kg.	

HTS50 HEAVY-DUTY PIPE SEALANT WITH PTFE



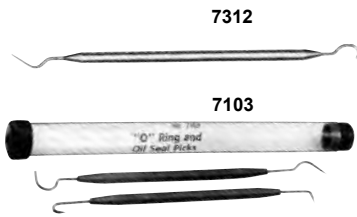
Note: Product labeling may vary from picture.

- Seals new or damaged threads; resists water, chemicals and oils.
- Replaces conventional tape methods; forms a clog-free seal.
- Effective at 700 Bar.

When "plumbing" a hydraulic system, there's now a better answer than tapes which can tear or shred, possibly plugging filters, valves or gauges. This compound combines the lubricating qualities of PTFE with a fast curing anaerobic sealant. Seals all metal fittings, plugs and threaded joints quickly and easily. Cures to form a permanent seal which is inert to hydrocarbons, most acids, chemicals, solvents and steam. Allows adjustment up to 16 hours after assembly; won't loosen under vibration. Prevents galling of mating parts upon disassembly. Withstands temperatures from -54° C to 190° C.

Order No.	Description
HTS50	Sealant, 50 ml. tube. Wt., 0,2 kg.

O-RING SEAL PICKS



Even the seemingly simple job of removing and installing O-ring seals can be difficult without the aid of the proper tool. The 7312 is constructed with plastic & steel O-ring seal pick does the job with ease. Two special picks in set 7103 get right to the trouble areas.

Order No.	Description
7312	O-ring seal pick. Wt., 0,1 kg.
7103	Set of two O-ring seal picks. Wt., 0,1 kg.

UNIVERSAL OUTSIDE THREAD CHASER



Restore damaged threads on shafts, housings, cages, etc., for re-assembly of matching parts. Eliminates need for thread-cutting equipment. Will not harm threads. V-pads and dies can be replaced. Cap. 32 to 127 mm O.D.

Order No.	Description
7402	Thread chaser, complete (with 6 dies: threads per inch – 4, 5, 6, 7, 7.5, 8, 9, 10, 11, 11.5, 12, 14, 16, 18, 20 and 24). Wt., 0,2 kg
202817	Metric die set (3 dies: mm per thread: 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, and 4). Wt., 0,1 kg.

MAGNETIC PICK-UP TOOL



Has permanent magnetic head for retrieving parts from otherwise inaccessible places.

Order No.	Description
7395	Pick-up tool with pocket clip. 152 mm lg. Wt., 0,1 kg.