



MetFit[®] MECHANICAL FITTINGS

ENGINEERED FOR DEPENDABILITY

HOW THEY WORK & WHY THEY ARE DIFFERENT

CONSISTENT, REPEATABLE INSTALLATION

- Simple one-step squeezing motion

COMPENSATES FOR COLD FLOW

- Ring maintains continuous pressure

REDUCES SENSITIVITY TO SCRATCHED PIPE

- Seals to smooth inside surface of pipe

GREATER MANUFACTURING QUALITY CONTROL

- Fewer parts — simple design

LONG LIFE

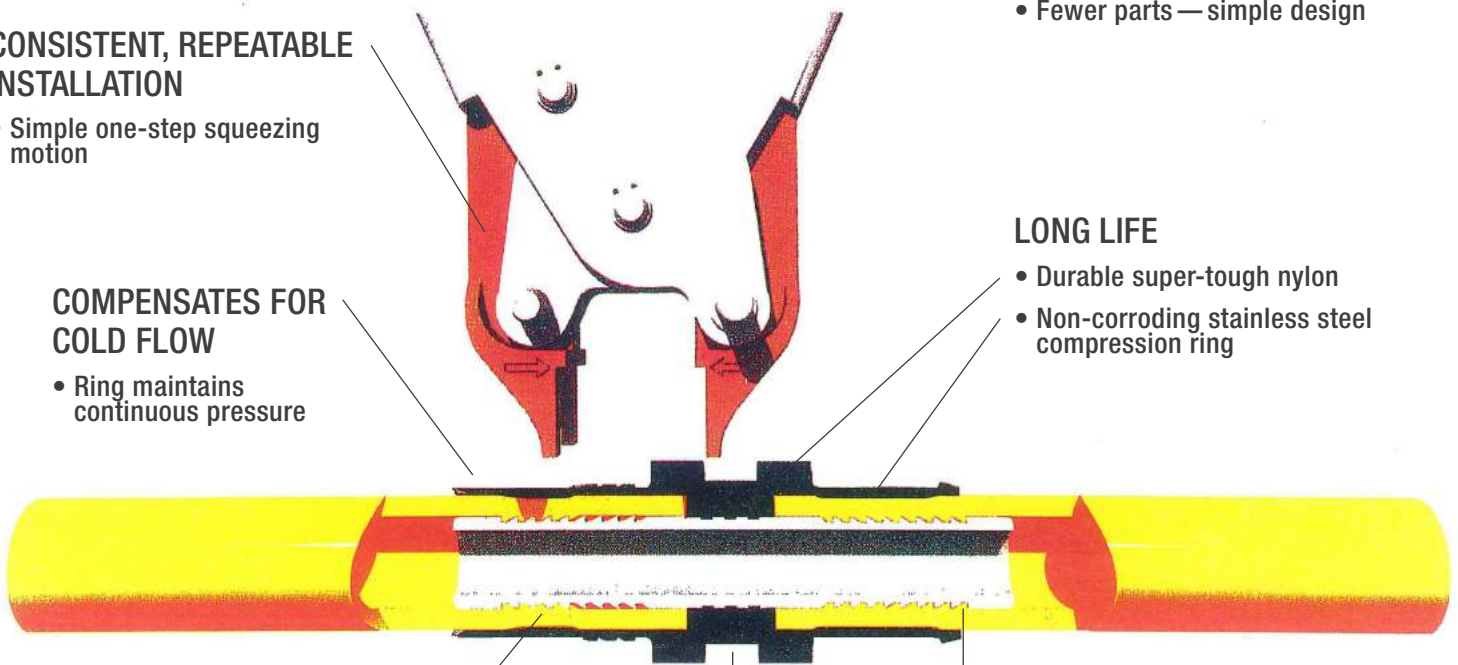
- Durable super-tough nylon
- Non-corroding stainless steel compression ring

INCREASED RELIABILITY

- Longer sealing surface

MOST COMPACT SIZE

- Fits in tighter spaces
- Less space on truck





MetFit[®] MECHANICAL FITTINGS

MATERIALS USED

SIMPLE DESIGN, FEWER PARTS

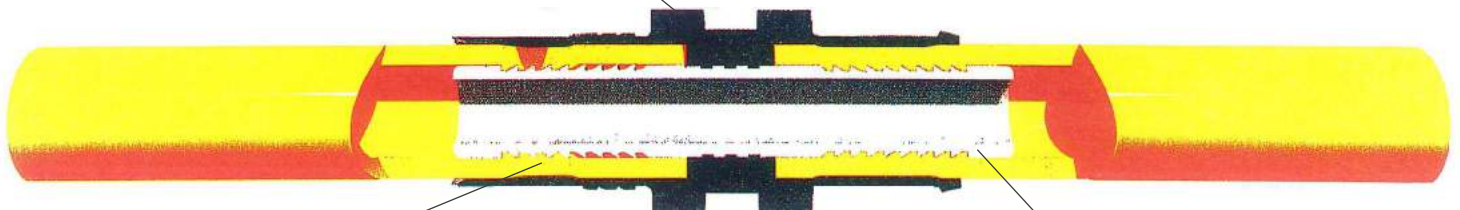
- Compression ring.
- Super-tough nylon body.
- Insert-molded stiffener.

ENGINEERED FOR DEPENDABILITY

The MetFit fitting construction is elegantly simple. The stiffener with its exterior sealing grooves is insert-molded into the super-tough nylon housing. The stainless steel compression ring is then pulled over the nylon compression ridges with a simple installation tool. The high compression force causes the pipe to cold flow into the stiffener sealing grooves, creating a hermetic seal on the inside surface.

BODY

- Dupont, Zytel[®] ST-801 BK-10.
- 100-percent virgin resin.
- Black in color.



RING

- Low carbon 316 stainless steel (annealed).
- Formed by deep-drawn stamping process.
- Passivated for added corrosion resistance.
- Each ring identified by size and lot number.
- Waxed for lubricity.

STIFFENER

- AISI-SAE 1008-1023 low-carbon steel.
- Cold-rolled DOM tubing.
- Zinc plated per ASTM B-633, Type 1 (Yellow).
- Sealing grooves on outside diameter.

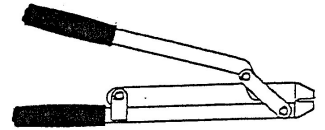


MetFit®

SERIES 200 1/2-INCH CTS INSTALLATION TOOL

727001 / FOR METFIT 1/2-INCH CTS, COUPLINGS, CAPS, ELLS AND TEES

Installation and maintenance instructions provided with tooling.



METFIT MECHANICAL FITTINGS 1/2-INCH CTS (5/8-INCH OD) INSTALLATION TOOL INSTRUCTIONS

INTRODUCTION

The MetFit Installation Tool 1/2-inch CTS (5/8-inch OD) is used to apply MetFit Mechanical Fittings to 1/2-inch CTS (5/8-inch OD) polyethylene gas tubing. Tube preparation and fitting installation procedures are described in the Instructions section.

The Maintenance section contains a maintenance and inspections procedure that enables the user to establish and maintain a tool certification program.

INSTRUCTIONS

PREPARATION AND ASSEMBLY

- To prepare the plastic tubing and assemble the fitting prior to crimping, use the following procedure:
- Cut end of tubing square.
- Remove burrs (formed by cutting) from the tubing.
- Mark the insertion depth on the tubing using a marking pen (insertion depth is 7/8 inch).
- Slide compression ring over end of tubing. Push tubing into fitting until end of tubing butts against shoulder inside the fitting. The mark should line up with the edge of the fitting (Figure 1).
- Fitting is now ready to be crimped.

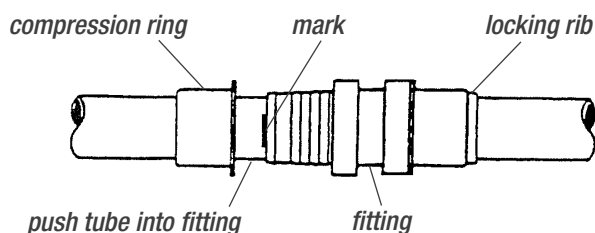


Figure 1

CRIMPING PROCEDURE

- Open the handles of the hand tool and place fitting in crimping jaws of tool, with stationary jaw in back of the fitting shoulder and moving jaw in back of the ring flange (Figure 2).
- Close the handles until the ring flange is against the fitting shoulder.
- Pull handles open and remove tool.
- Inspect to ensure the rings are bottomed out and are past locking grip (Figure 3).

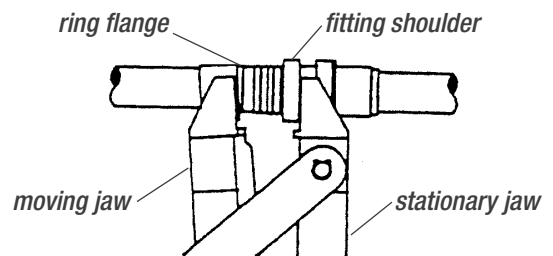


Figure 2

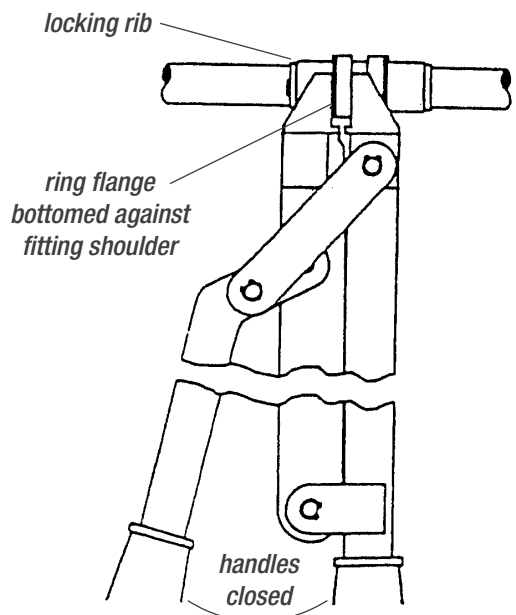


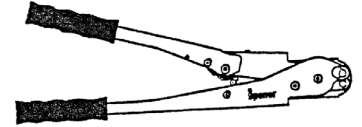
Figure 3



MetFit[®]

SERIES 200 V-TOOL

727007 / 36 RATCHET TEETH



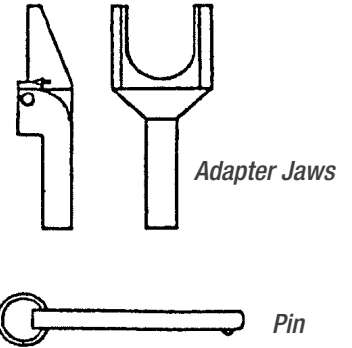
**INSTALLS CTS AND IPS SIZES WITH:
UNIVERSAL ADAPTER JAWS (727100)*
FOR 1/2-INCH IPS, 3/4-INCH IPS,
1-INCH IPS AND 1 1/4-INCH CTS**

**INSTALLS CTS SIZES WITH:
1/2-INCH CTS ADAPTER JAWS (727101)*
1-INCH CTS ADAPTER JAWS (727121)*
1 1/4-INCH CTS ADAPTER JAWS (727131)***

**INSTALLS IPS SIZES WITH:
1/2-INCH IPS ADAPTER JAWS (727102)*
3/4-INCH IPS ADAPTER JAWS (727112)*
1-INCH IPS ADAPTER JAWS (727131)***

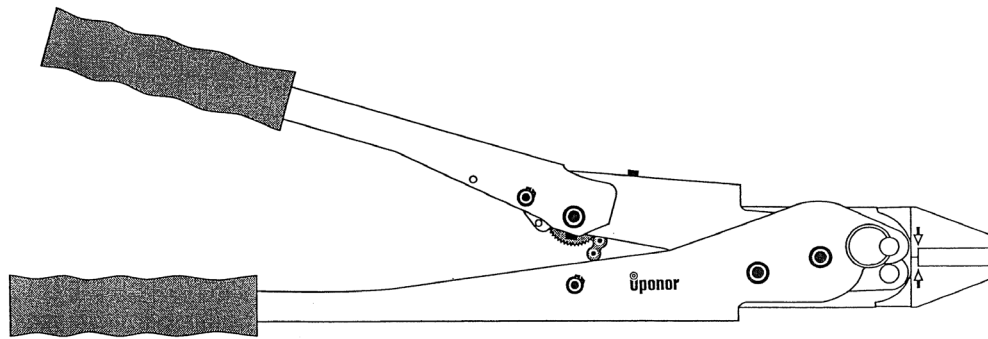
**V-TOOL INCLUDES:
ADAPTER JAW PINS (727401)**

**Products sold separately.*



METFIT V-TOOL

ASSEMBLES 1/2-INCH CTS TO 1 1/4-INCH CTS



MAINTENANCE AND INSPECTION PROCEDURE

The manufacturer recommends that the user perform an inspection once a month. This will assure that continued use of the tool will result in the same dependable and uniform connections for which the tool was designed. The frequency of the inspection may be adjusted to suit the user's requirements.

The frequency of an inspection depends on:

- The care, amount of use and handling of the tool.
- The presence of abnormal amounts of dust and dirt.
- The user's established standards.

With proper maintenance and inspection, these tools will provide years of satisfactory service.

CLEANING

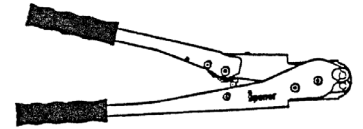
Immerse the tool in a reliable commercial degreasing compound to remove accumulated dirt, grease and foreign matter. Remove remaining degreasing compound with a cloth. When degreasing compounds are not available, the tool may be wiped clean with a cloth.



MetFit[®]

SERIES 200 V-TOOL

727007 / 36 RATCHET TEETH



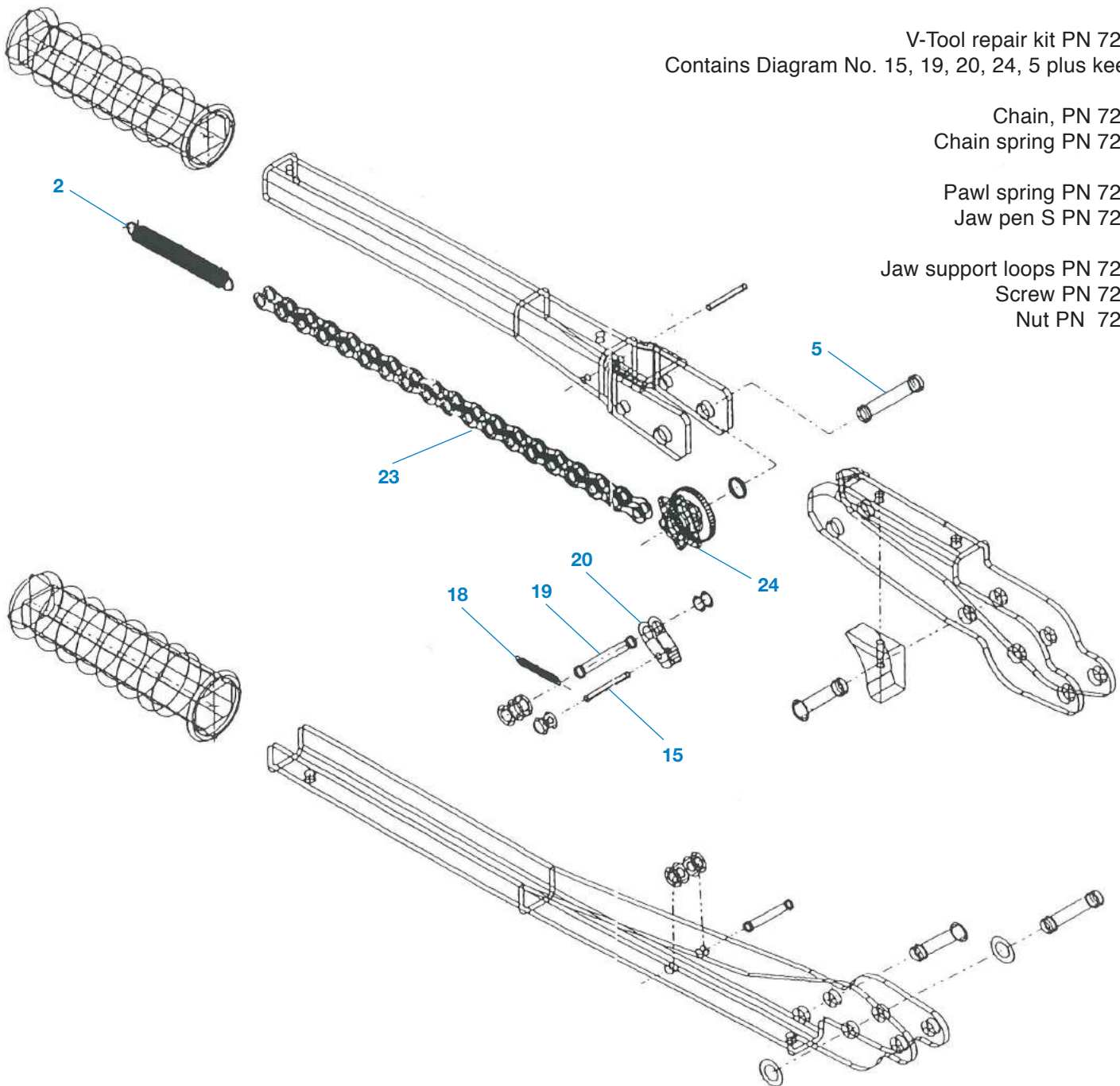
V-TOOLS REPAIR PARTS

V-Tool repair kit PN 727501
Contains Diagram No. 15, 19, 20, 24, 5 plus keepers

Chain, PN 727529
Chain spring PN 727514

Pawl spring PN 727515
Jaw pen S PN 727401

Jaw support loops PN 727010
Screw PN 727547
Nut PN 727548

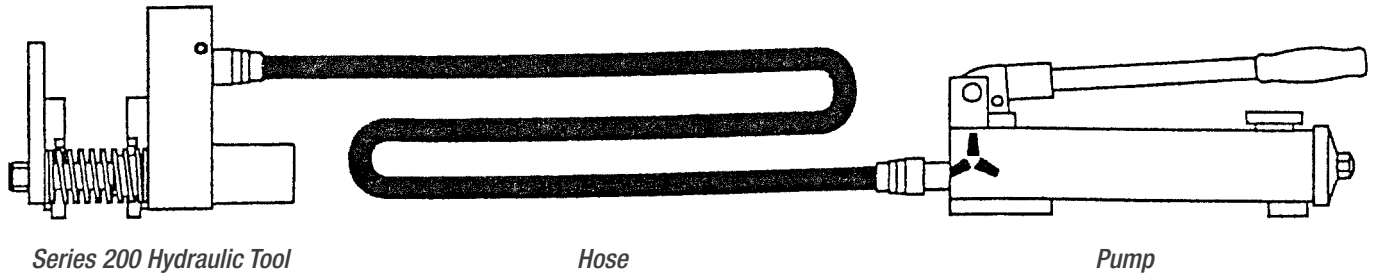




MetFit[®]

SERIES 200 HYDRAULIC TOOL SYSTEM (727016)

INCLUDES: 2-INCH IPS ADAPTERS, HYDRAULIC HOSE, HYDRAULIC PUMP



Series 200 Hydraulic Tool

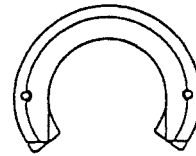
Hose

Pump

PRODUCTS AVAILABLE SEPARATELY

- Series 200 hydraulic tool (727006)
- 2-inch IPS adapter jaws (727207)
- 1 1/4-inch IPS adapter jaws (727206)
- Hydraulic hose (727053)
- Hydraulic pump (727052)

Installation and maintenance instructions provided with tooling.



Adapter Jaws

METFIT MECHANICAL FITTINGS

INSTRUCTION FOR SERIES 200 HYDRAULIC APPLICATION TOOL

INTRODUCTION

This sheet provides instruction on product applications and a maintenance and inspection procedure for the MetFit Series 200 Hydraulic Tool (727006).

This tool is used to apply MetFit Mechanical fittings to 2-inch IPS. (Separate adapter jaws are required installation of 1 1/4-inch IPS and 2-inch IPS fittings. A separate adapter installation sheet describes the installation and use of these adapter jaws.)

The crimping head is self-lubricated, requires no adjustments and is activated by a hydraulic pump. Any hydraulic pump with a minimum hydraulic press of 2,000 psi will work as long as the hose has a proper fitting on the end.

Pipe preparation and fitting installation procedures are described in the Instructions section. The Maintenance section contains a maintenance and inspection procedure that will enable the use to establish a tool certification program.

INSTRUCTIONS

PREPARATION AND ASSEMBLY

To prepare the plastic pipe and assemble the fitting prior to crimping, use the following general procedure.

- Cut ends of the pipe square.
- Remove burrs (formed by cutting) from the plate.
- Mark the insertion depth on the pipe using a marking pen (insertion depth is 1 1/4-inch for the 1 1/4-inch IPS and 2-inch IPS fittings).
- Slide the compression ring over the end(s) of the pipe. Push pipe end into fitting until it bottoms. For repairs, refer to installation instructions packaged with the fittings.
- Fitting is now ready to be crimped.

PIPE READY TO INSERT INTO FITTING RING POSITIONED ON PIPE.

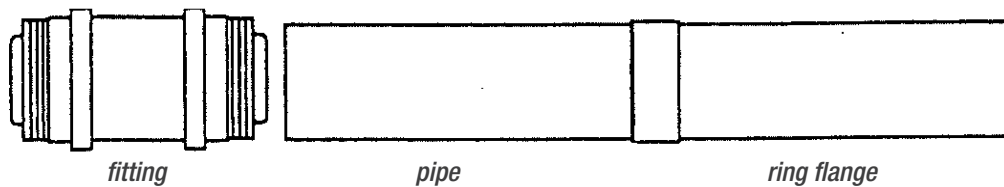
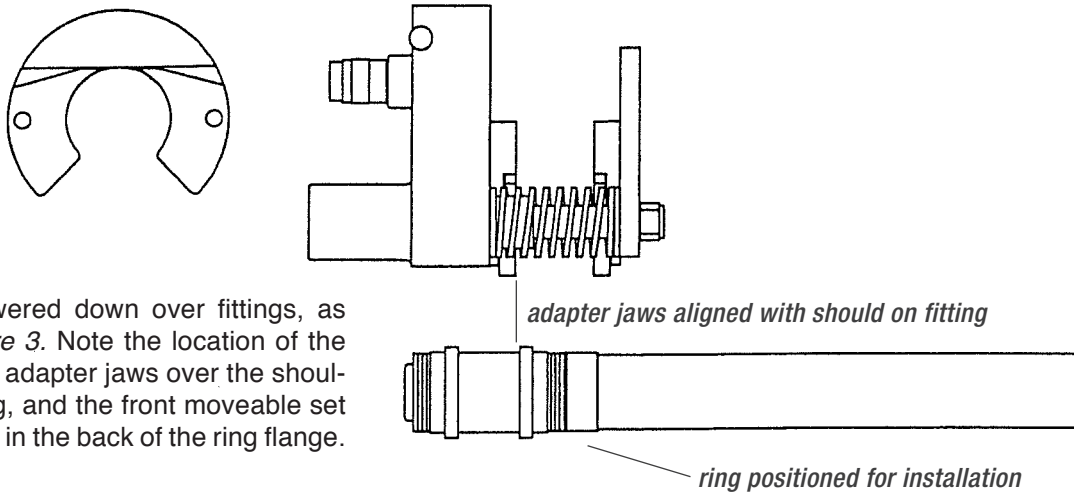


Figure 1

TOOL POSITIONED OVER PIPE AND FITTING.



e. The tool is lowered down over fittings, as shown in *Figure 3*. Note the location of the rear, stationary adapter jaws over the shoulder of the fitting, and the front moveable set of adapter jaws in the back of the ring flange.

Figure 2

TOOL BEING LOWERED OVER FITTING AND RING.

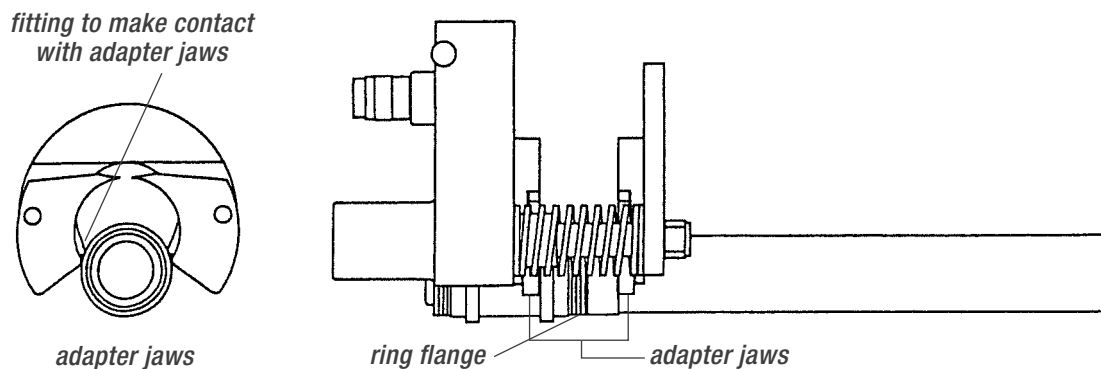


Figure 3

f. After the ring has been installed past the fitting's locking rib, release the hydraulic pump by turning the pump valve shown in *Figure 1* and remove the tool from the installed ring.

g. Inspect to insure rings are bottomed out sufficiently to pass the locking rib on the fitting. If this is not the case, rotate the tool 90 degrees and repeat the crimping procedure.



MetFit[®]

SERIES 200 HYDRAULIC TOOL SYSTEM (727016)

INCLUDES: 2-INCH IPS ADAPTERS, HYDRAULIC HOSE, HYDRAULIC PUMP

MAINTENANCE AND INSPECTION PROCEDURE

The manufacturer recommends that the user perform an inspection once a month. This will assure that continued use of the tool will result in the same dependable and uniform connections for which the tool was designed. The frequency of the inspection may be adjusted to suit the user's requirements.

The frequency of an inspection depends on:

- The care, amount of use and handling of the tool.
- The presence of abnormal amounts of dust and dirt.
- The user's established standards.

With proper maintenance and inspection, these tools will provide years of satisfactory service.

CLEANING

Immerse the tool in a reliable commercial degreasing compound to remove accumulated dirt, grease and foreign matter. Remove remaining degreasing compound with a cloth. When degreasing compounds are not available, the tool may be wiped clean with a cloth.

VISUAL INSPECTION

While the rugged design and construction of this hydraulic tool precludes any damage from wear during normal use, abnormal use or accidental occurrences can still possibly cause damage to the tool. Because of this, operators should visually inspect the tool for worn or damaged parts. If parts are worn or damaged, return the tool to the manufacturer for repair.



MetFit[®]

SERIES 200 HYDRAULIC TOOL SYSTEM (727016)

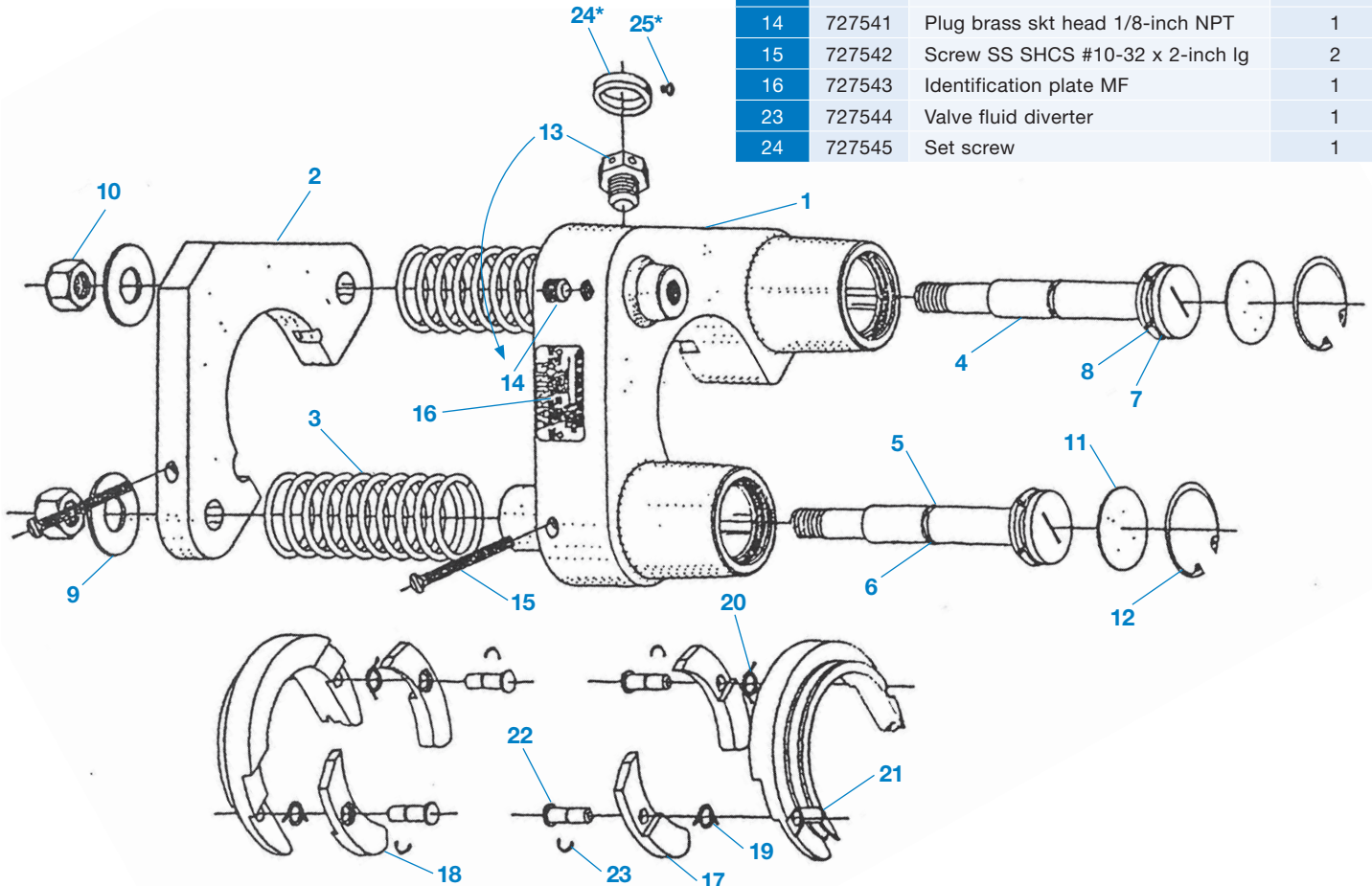
INCLUDES: 2-INCH IPS ADAPTERS, HYDRAULIC HOSE, HYDRAULIC PUMP

METFIT HYDRAULIC TOOL SERIES 200 ISOMETRIC VIEW PN 727006

ASSEMBLY P/N 727207 JAW KIT 2-INCH			
NO.	PART	DESCRIPTION	QUANTITY
17	727422	Jaw Plate 2-inch RH	1
18	727423	Jaw Plate 2-inch LH	1
19	727502	Torsion spring RH	1
20	727503	Torsion spring LH	1
21	727507	Jaw insert	2
22	727242	Pivot pin	4
23	727504	Retaining ring 2000-25 IRR	4

* 24 & 25 to be discontinued.

ASSEMBLY P/N 727006 HYDRAULIC TOOL			
NO.	PART	DESCRIPTION	QUANTITY
1	727530	Body MF HYD tool	1
2	727531	Plate MF HYD tool	1
3	727532	Spring R Barns C1460-148-3500m	2
4	727533	Piston MF HYD tool	2
5	727534	Ring backup Teflon #2-014	2
6	720552	O-ring #2-014	2
7	727535	Ring backup Teflon #2-214	2
8	720568	O-ring #2-214	2
9	727536	Washer flat 1/2-inch	2
10	727537	Nut-plated hex head 1/2-20	2
11	727538	Cover aluminum 1.415 OK x 0.045	2
12	727539	Ring retaining IRR 3000-X143	2
13	727546	Valve relief OSECO OUT-1	1
14	727541	Plug brass skt head 1/8-inch NPT	1
15	727542	Screw SS SHCS #10-32 x 2-inch lg	2
16	727543	Identification plate MF	1
23	727544	Valve fluid diverter	1
24	727545	Set screw	1





MetFit[®]

FITTINGS & TOOLS

CAPS			
	PRODUCT CODE	BAG QTY	LIST PRICE
1/2" CTS .090 WALL SDR 7	605063000012	25	11.08
1/2" CTS .062 WALL SDR 10	605063000072	25	11.34
1/2" IPS .090 WALL SDR 9.3	605084000052	25	18.48
3/4" CTS .090 WALL SDR 9.8	605088000062	25	18.48
3/4" IPS .095 WALL SDR 11	605105000082	25	20.58
1" CTS .090 WALL SDR 12.5	605113000002	20	23.90
1" CTS .099 WALL SDR 11/11.5	605113000092	20	22.85
1" IPS .119 WALL SDR 11	605132000082	20	41.58
1 1/4" CTS .090 WALL SDR 15.3	605138000082	10	42.57
1 1/4" IPS .166 WALL SDR 10	605166000072	10	50.19
1 1/4" IPS .151 WALL SDR 11	605166000082	10	51.92
2" IPS .216 WALL SDR 11	605238000082	10	62.54

COUPLINGS			
	PRODUCT CODE	BAG QTY	LIST PRICE
1/2" CTS .090 WALL SDR 7	600063063012	25	12.15
1/2" CTS .062 WALL SDR 10	600063063072	25	12.42
1/2" IPS .090 WALL SDR 9.3	600084084052	25	14.13
3/4" CTS .090 WALL SDR 9.8	600088088062	25	14.96
3/4" IPS .095 WALL SDR 11	600105105082	25	24.95
1" CTS .099 WALL SDR 11/11.5	600113113092	10	24.95
1" CTS .090 WALL SDR 12.5	600113113002	10	27.74
1" IPS .119 WALL SDR 11	600132132082	10	31.36
1 1/4" CTS .090 WALL SDR 15.3	600138138082	10	48.43

REPAIR COUPLINGS			
	PRODUCT CODE	BOX QTY	LIST PRICE
1 1/4" IPS .151 WALL SDR 11	601166166082	25	56.96
1 1/4" IPS .166 WALL SDR 10	601166166072	25	58.41
1 1/2" IPS .173 WALL SDR 11	601190190082	25	64.09
2" IPS .216 WALL SDR 11	601238238082	25	78.98

NOTE: IPS is used throughout this catalog unless CTS is designated.



MetFit[®]

FITTINGS & TOOLS



90 DEGREE ELBOWS			
	PRODUCT CODE	BAG QTY	LIST PRICE
1/2" CTS .090 WALL SDR 7	602063063012	25	28.88
1/2" IPS .090 WALL SDR 9.3	602084084052	25	33.21
3/4" CTS .090 WALL SDR 9.8	602088088062	10	34.65
3/4" IPS .095 WALL SDR 11	602105105082	10	47.57
1" CTS .099 WALL SDR 11/11.5	602113113092	10	51.23
1" CTS .090 WALL SDR 12.5	602113113002	10	53.67
1" IPS .119 WALL SDR 11	602132132082	10	54.29
1 1/4" CTS .090 WALL SDR 15.3	602138138082	5	57.89
1 1/4" IPS .166 WALL SDR 10	602166166072	5	95.29
1 1/4" IPS .151 WALL SDR 11	602166166082	5	98.16
2" IPS .216 WALL SDR 11	602238238082	5	136.01

TEES			
	PRODUCT CODE	BAG QTY	LIST PRICE
1/2" CTS .090 WALL SDR 7	603063063012	25	29.40
1/2" IPS .090 WALL SDR 9.3	603084084052	25	29.40
3/4" CTS .090 WALL SDR 11	603088088062	5	42.92
3/4" IPS .095 WALL SDR 11	603105105082	5	42.92
1" CTS .099 WALL SDR 11/11.5	603113113092	5	56.45
1" CTS .090 WALL SDR 12.5	603113113002	5	59.14
1" IPS .119 WALL SDR 11	603132132082	5	59.14
1 1/4" CTS .090 WALL SDR 15.3	603138138082	5	86.00
1 1/4" IPS .166 WALL SDR 10	603166166072	5	86.00
1 1/4" IPS .151 WALL SDR 11	603166166082	5	86.00
2" IPS .216 WALL SDR 11	603238238082	5	86.00

NOTE: IPS is used throughout this catalog unless CTS is designated.



MetFit®

FITTINGS & TOOLS



REDUCERS						
	SDR		SDR	PRODUCT CODE	BAG QTY	LIST PRICE
1/2" CTS .090 WALL	7	1/2" CTS .062 WALL	10	604063063002	20	17.33
1/2" IPS .090 WALL	9.3	1/2" CTS .090 WALL	7	604084063002	20	31.19
3/4" CTS .090 WALL	9.8	1/2" CTS .090 WALL	7	604088063012	20	31.19
3/4" CTS .090 WALL	9.8	1/2" IPS .090 WALL	9.3	604088084052	20	32.34
3/4" IPS .095 WALL	11	1/2" CTS .090 WALL	7	604105063002	20	32.40
3/4" IPS .095 WALL	11	1/2" IPS .090 WALL	9.3	604105084002	20	34.65
3/4" IPS .095 WALL	11	3/4" CTS .090 WALL	9.8	604105088062	20	34.65
1" CTS .099 WALL	11.5	1/2" IPS .090 WALL	9.3	604113084062	20	39.27
1" CTS .090 WALL	12.5	1/2" IPS .090 WALL	9.3	604113084012	20	40.43
1" CTS .099 WALL	11.5	3/4" CTS .090 WALL	9.8	604113088062	20	40.43
1" CTS .090 WALL	12.5	3/4" CTS .090 WALL	9.8	604113088002	20	40.43
1" CTS .090 WALL	12.5	3/4" IPS .095 WALL	11	604113105002	20	34.65
1" CTS .099 WALL	11.5	3/4" IPS .095 WALL	11	604113105012	20	34.65
1" CTS .099 WALL	11.5	1/2" CTS .090 WALL	7	604113063012	20	34.16
1" CTS .090 WALL	12.5	1/2" CTS .090 WALL	7	604113063002	20	35.85
1" IPS .119 WALL	11	1/2" CTS .090 WALL	7	604132063002	10	46.20
1" IPS .119 WALL	11	1/2" IPS .090 WALL	9.3	604132084002	10	46.20
1" IPS .119 WALL	11	3/4" CTS .090 WALL	9.8	604132088002	10	46.20
1" IPS .119 WALL	11	3/4" IPS .095 WALL	11	604132105002	10	46.20
1" IPS .119 WALL	11	1" CTS .090 WALL	12.5	604132113002	10	56.20
1" IPS .119 WALL	11	1" CTS .099 WALL	11.5	604132113092	10	46.20
1 1/4" CTS .090 WALL	15.3	1/2" CTS .090 WALL	7	604138063012	10	51.98
1 1/4" CTS .090 WALL	15.3	1/2" IPS .090 WALL	9.3	604138084052	10	57.75
1 1/4" CTS .090 WALL	15.3	3/4" CTS .090 WALL	9.8	604138088062	10	57.75
1 1/4" CTS .090 WALL	15.3	3/4" IPS .095 WALL	11	604138105082	5	51.98
1 1/4" CTS .090 WALL	15.3	1" CTS .099 WALL	11.5	604138113092	5	51.98
1 1/4" CTS .090 WALL	15.3	1" CTS .090 WALL	12.5	604138113002	5	51.98
1 1/4" CTS .090 WALL	15.3	1" IPS .119 WALL	11	604138132082	5	51.98
2" IPS .216 WALL	11	1 1/4" IPS .166 WALL	10	604238166072	5	95.29
2" IPS .216 WALL	11	1 1/4" IPS .151 WALL	11	604238166082	5	95.29

NOTE: IPS is used throughout this catalog unless CTS is designated.



MetFit® FITTINGS & TOOLS

TOOLS / KITS / CUTTERS

	PRODUCT CODE	BOX QTY	LIST PRICE
1/2" CTS – 1/4" CTS SERIES 200 V TOOL (INCLUDING PINS)	727007	1	642.68
1/2" CTS – 1 1/2" IPS, 3/4" IPS, 1" CTS UNIVERSAL ADAPTOR JAWS (INCLUDING PINS)	727100	1	97.02
1/2" CTS ADAPTOR JAWS (SET OF 2) FOR V-TOOL	727101	1	60.64
1/2" IPS – 3/4" CTS ADAPTOR JAWS (SET OF 2) FOR V-TOOL	727102	1	60.64
1" CTS ADAPTOR JAWS (SET OF 2) FOR V-TOOL	727121	1	60.64
1" IPS – 1/4" CTS ADAPTOR JAWS (SET OF 2) V-TOOL	727131	1	72.77
3/4" IPS ADAPTOR JAWS (SET OF 2) FOR V-TOOL	727112	1	72.77
1/2" CTS – 1/4" CTS PINS (SET OF 2) FOR V-TOOL	727401	1	18.00
SERIES 200 HYDRAULIC TOOL WITH 2" IPS ADAPTOR JAWS	727006	1	970.20
RELIEF VALVE FOR SERIES 200 HYDRAULIC TOOL	727546	1	86.47
HYDRAULIC PUMP-DUAL STAGE	727052	1	424.20
HYDRAULIC HOSE	727053	1	97.02
SERIES 200 HYDRAULIC SYSTEM WITH 2" IPS JAWS INCLUDES HYDRAULIC TOOL, PUMP, HOSE	727016	1	1443.17
SERIES 200 HYDRAULIC SYSTEM WITH 1/4" & 2" IPS JAWS INCLUDES HYDRAULIC TOOL, PUMP, HOSE	727018	1	1617.77
1/4" IPS HYDRAULIC ADAPTOR JAWS	727206	1	186.90
1 1/2" IPS HYDRAULIC ADAPTOR JAWS	727208	1	194.25
2" IPS HYDRAULIC ADAPTOR JAWS	727207	1	210.00
RATCHET MECHANICAL TOOL	727013	1	537.00
1/2" CTS - 1" CTS INSTALLATION TOOL	727011	1	299.25
1/2" CTS INSTALLATION TOOL (NUTCRACKER)	727001	1	246.89
METFIT® TOOL KIT INCLUDES 1 EACH OF THE FOLLOWING ITEMS: 1. TOOL BOX 2. 727007 V-TOOL 3. 727100 UNIVERSAL JAW 4. 727131 1" IPS/ 1/4" CTS JAW 5. 727006 HYDRO TOOL WITHOUT 2" JAWS 6. 727206 1/4" IPS JAWS 7. 727208 1 1/2" IPS JAWS 8. 727052 HYDRAULIC PUMP 9. 727053 HYDRAULIC HOSE	727020	1	2750.00
METFIT® TOOL KIT INCLUDES SAME AS 727020 BUT ALSO INCLUDES 1/2" CTS INSTALLATION TOOL (NUTCRACKER)	727021	1	3050.00

NOTE: IPS is used throughout this catalog unless CTS is designated.