

# AutoSPLITTER

STRAIGHT HEAD MODELS

HYDRAULIC NUT SPLITTER



OPERATIONS AND MAINTENANCE MANUAL

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## INTRODUCTION

With the FASTORQ AutoSPLITTER you can safely cut through frozen nuts in just seconds. This is achieved by designing in the features listed below.

- ◆ **Adaptability:** AutoSPLITTER is available with special nut adapters to allow you to split huck nuts, round nuts and 12 point hex nuts.
- ◆ **Versatility:** AutoSPLITTER comes in various sizes and models, including Straight Head Models, Angle Head Models and Double Cutting™ Angle Head Models and each model can split multiple nut sizes.
- ◆ **Flexibility:** AutoSPLITTER is designed to fit into the tightest spaces and because of our multiple model selection; we can find the right tool for your specific application.
- ◆ **Precision:** AutoSPLITTER cutting chisels can be positioned so that only the nut is cut leaving the stud and threads unharmed.
- ◆ **Speed:** AutoSPLITTER can be unpacked from its toolbox assembled and ready to use in less than five minutes and it only takes mere seconds to split a nut.
- ◆ **Safety:** AutoSPLITTER does not use any sort of hammering or impact or flame to split nuts, as such no specialty permits are required for operation on the job.

## WARNINGS AND SAFETY TIPS

**\*\*ALWAYS PREFORM A VISUAL INSPECTION OF ANY TOOL AND ITS ACCESSORIES BEFORE USE. NEVER ATTEMPT TO USE EXCESSIVELY WORN, BROKEN OR DULL TOOLS\*\***



IS A CHANCE THAT OCCURS, EYE ENCOURAGED AT ALL SPLIT NUTS INTO ANY ORIGINAL SIZE.

KEEP ALL OBJECTS, OTHER THAN THE NUT BEING SPLIT, OUT OF THE TOOL. TOOL DAMAGE AND INJURY MAY OCCUR



WHEN SPLITTINGS METAL OBJECTS THERE DEBRIS MAY BE EJECTED AS THE SPLIT PROTECTION AND SAFETY GLOVES ARE TIMES WHILE IN OPERATION. DO NOT PIECES SMALLER THAT HALF THE NUTS



NEVER EXCEED 10,000 OPERATING AN AUTO-SPLITTER™.

DO NOT ALLOW THE HYDRAULIC HOSES TO KINK, TWIST, CURL OR BEND SO TIGHTLY THAT THE FLOW OF HYDRAULIC IS BLOCKED OR SLOWED IN ANY WAY.



PSI OF HYDRAULIC PRESSURE WHILE



NEVER ATTEMPT TO GRASP A PRESSURIZED HOSE THAT IS LEAKING.

## POWER REQUIREMENTS

The AutoSPLITTER is hydraulically driven. All models require a hydraulic pump that delivers 10,000 PSI pressure. Exceeding 10,000 PSI pressure will void any and all warranties. Any type of hydraulic pump may be used to operate the AutoSPLITTER including air, electric, foot driven or hand driven pumps. Pumps can be purchased separately from FASTORQ and include all the necessary hoses and fittings, see the list below for appropriate pump and AutoSPLITTER combinations.

### Available FASTORQ Hydraulic Pumps for Straight Head AutoSPLITTER

Auto SPLITTER Model	Available FATORQ Power Units						
Straight Head Models	100-H Hand Driven	105-A Air Driven	150-H Hand Driven	150-F Foot Driven	205-A Air Driven	115-E Electric Driven	215-E Electric Driven
AS105	X	X					X
AS200	X	X	X	X	X	X	X
AS204	X	X	X	X	X	X	X
AS210	X	X	X	X	X	X	X
AS308			X	X	X	X	X
AS314			X	X	X	X	X
AS404						X	X
AS500						X	X
AS506						X	X
AS608						X	X

If a FASTORQ hydraulic pump is not used, refer to the chart listed below for the appropriate power requirements.

### Pump Power Requirements for Non-FASTORQ Pumps

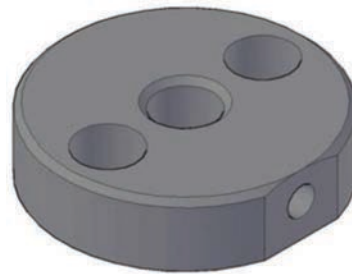
Straight Head Models	Valve Type	Hose Rating	Usable Minimum Capacity
AS105	2-Way	10,000 PSI	10 in <sup>3</sup>
AS200	2-Way	10,000 PSI	10 in <sup>3</sup>
AS204	2-Way	10,000 PSI	44 in <sup>3</sup>
AS210	2-Way	10,000 PSI	44 in <sup>3</sup>
AS308	2-Way	10,000 PSI	82 in <sup>3</sup>
AS314	2-Way	10,000 PSI	82 in <sup>3</sup>
AS404	3-Way	10,000 PSI	140 in <sup>3</sup>
AS500	3-Way	10,000 PSI	140 in <sup>3</sup>
AS506	3-Way	10,000 PSI	140 in <sup>3</sup>
AS608	3-Way	10,000 PSI	

## ASSEMBLY

Within the AutoSPLITTER there are three “Model” types, they are the Straight Head Models, Angle Head Models and Angle Head Double Cut Models. All three models share similar features of assembly but between the three models there are two different methods of holding the cutting chisels. See the illustration below.



Type 1



Type 2

The assembly instructions are separated based on the chisel holder types. Section 1 assembly shall cover all assemblies involving the “Type 1” chisel holder and Section 2 shall cover all assemblies involving the “Type 2” chisel holders.

## Section 1 – Assembly instructions for “Type 1” Chisel Holders

1. Unscrew the chisel holder from the cylinder.
2. Place the knobbed end of the cutting chisel into the center hole of the chisel holder.
3. Insert the set screw into the threaded side hole of the chisel holder. Do not over tighten the set screw, it is provided to hold the cutting chisel inside the chisel holder only, the cutting chisel should be loose enough to spin with minimal friction inside the chisel holder but not fall out.
4. Place the appropriate space for the nut you are cutting inside the cylinder. The spacer shall be placed inside the cylinder in such a way that the engraved side can be read. Only one spacer is required to split a nut. Never split a nut with more than one spacer installed at a time, doing so will damage the stud threads.
5. Screw the chisel holder and chisel assembly from Step 3 into the cylinder until it is seated firmly and bottomed out in the cylinder.
6. Connect the cylinder and pump together via 10,000 PSI hydraulic hose.
7. Pressure up the cylinder until the internal piston has been fully extended from the cylinder. Hold the pressure so that the piston stays in this extended position.
8. Place the AutoSPLITTER housing on the threaded end of the cylinder and screw the housing onto the cylinder. Screw the housing all the way onto the cylinder until it is seated firmly and bottomed out on the cylinder. Once the housing has been seated firmly and bottomed out on the cylinder, unscrew the housing one full turn.
9. Insert the set screw into the threaded side hole of the housing and tighten to secure it into place.
10. Release the held pressure on the cylinder to allow the piston to retract back into the cylinder.
11. Your AutoSPLITTER is now fully assembled and ready for use.

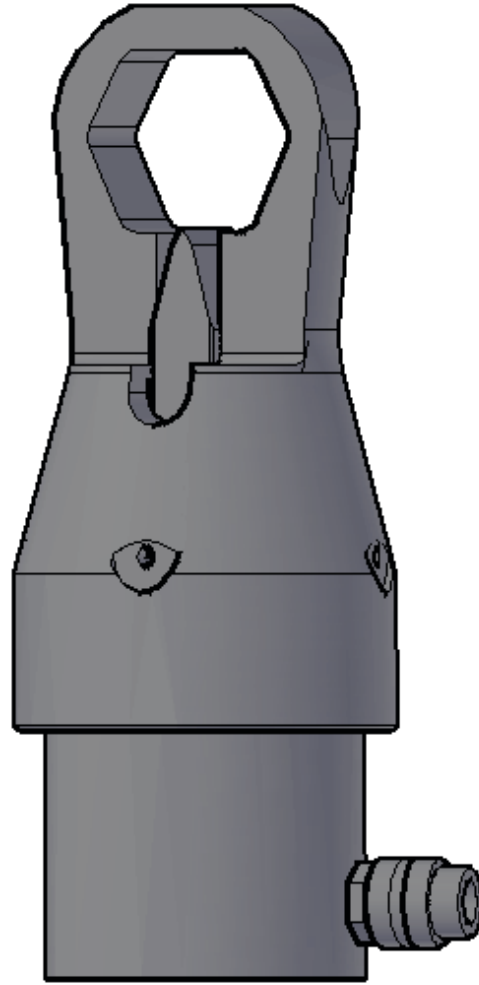


## Section 2 – Assembly instructions for “Type 2” Chisel Holders

1. Unbolt the chisel holder from the cylinder.
2. Place the knobbed end of the cutting chisel into the center hole of the chisel holder.
3. Insert the set screw into the threaded side hole of the chisel holder. Do not over tighten the set screw, it is provided to hold the cutting chisel inside the chisel holder only, the cutting chisel should be loose enough to spin with minimal friction inside the chisel holder but not fall out.
4. Place the appropriate spacer for the nut you are cutting inside the cylinder. The spacer shall be placed inside the cylinder in such a way that the engraved side can be read. Only one spacer is required to split a nut. Never split a nut with more than one spacer installed at a time, doing so will damage the stud threads.
5. Align the two bolt holes of the chisel holder and spacer assembly from Step 3 to the two threaded holes on the top of the piston on the cylinder and screw in the two bolts removed from Step 1. Tighten the two bolts until they are seated firmly in the cylinder. Some of the AutoSPLITTER models are packaged with two sets of bolts, this is to accommodate thicker spacers, if during assembly it is discovered that the two bolts are too short use the longer second set to firmly bolt the chisel holder assembly and spacer into the cylinder.
6. Connect the cylinder and pump together via 10,000 psi hydraulic hose.
7. Pressure up the cylinder until the internal piston has been fully extended from the cylinder. Hold the pressure so that the piston stays in this extended position.
8. Place the AutoSPLITTER housing on the threaded end of the cylinder and screw the housing onto the cylinder. Screw the housing all the way onto the cylinder until it is seated firmly and bottomed out on the cylinder. Once the housing has been seated firmly and bottomed out on the cylinder, unscrew the housing one full turn.
9. Insert the set screw into the threaded side hole of the housing and tighten to secure it into place.
10. Release the held pressure on the cylinder to allow the piston to retract back into the cylinder.
11. Your AutoSPLITTER is now fully assembled and ready for use.

Your completely assembled AutoSPLITTER should resemble the illustration the next page.

## Assembled AutoSPLITTER

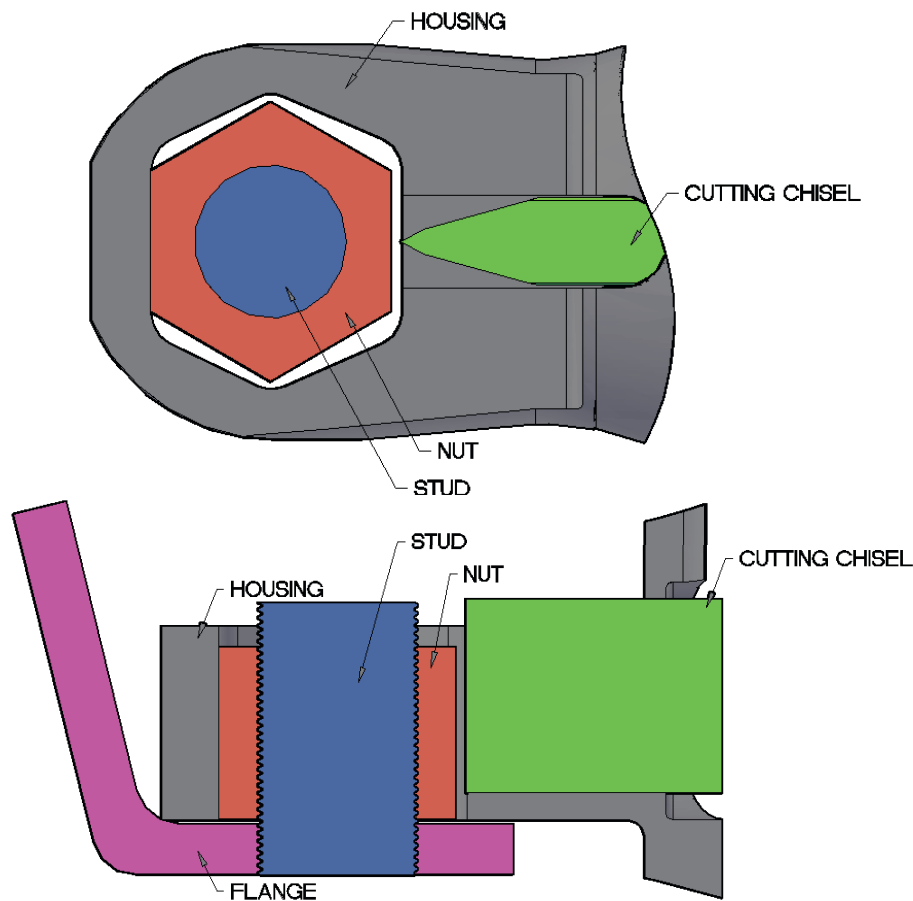


## OPERATION

### \*\*Note\*\*

\*Before operation read and follow all warnings, safety tips and assembly instructions.

1. Lubricate the cutting edge of the chisel with an anti-seize lubricant before each split it attempted. FASTORQ 70+ lubricant is recommended and can be purchased separately.
2. Place the AutoSPLITTER over the nut to be split. Orientate the AutoSPLITTER in the exact position as illustrated below. The AutoSPLITTER should be parallel to the surface of the flange and the cutting chisel should be centered on a flat side of the nut being split. Refer to the illustration below for proper alignment.



PROPER PROFILE ORIENTATION

3. Pressurize the cylinder to extend the chisel slowly until the cutting edge makes contact with the flat nut face. Verify that the cutting edge is centered on the flat of the nut before continuing.

4. Continue to pressurize the cylinder slowly to begin splitting the nut. You will hear a loud pop; this noise indicates that the nut has been successfully split. Once you hear the loud pop, stop pressurizing the cylinder.
5. If the nut was frozen in place, once it has been split it should be freed enough to rotate the nut 180° to split the opposite flat on the nut for complete removal. If the nut cannot be rotated to access the opposite flat of the nut then reorient the AutoSPLITTER itself instead and repeat steps 1 thru 4.
6. Having two opposite flats faces of the nut successfully split, the nut should now be in two pieces and can easily be removed from the stud.

A successfully split nut should look like the illustration below.



## MAINTENANCE

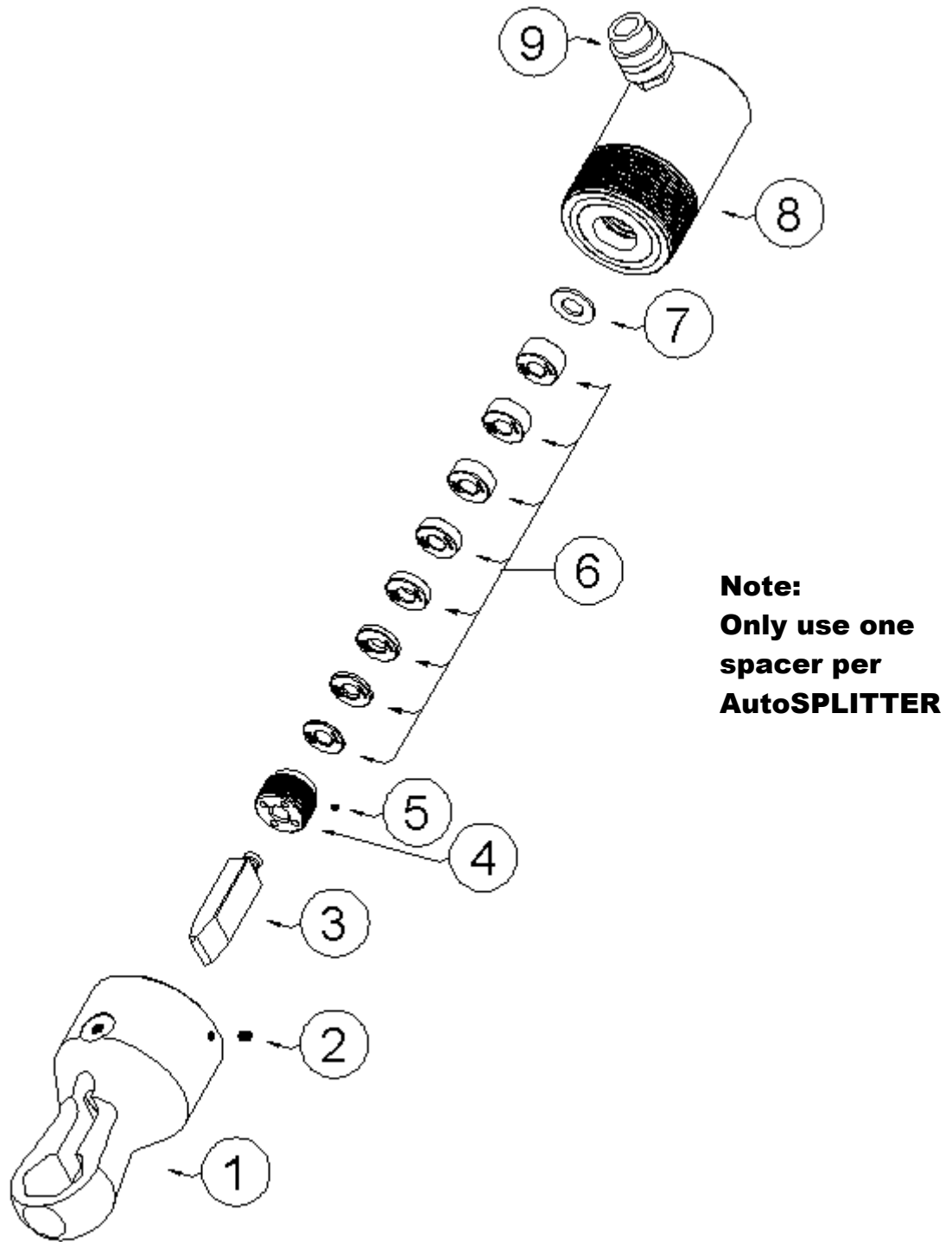
The FASTORQ AutoSPLITTER is designed to be a low maintenance tool. Following the steps below will help ensure a long useful shelf life of the tool for years to come.

- ◆ Always lubricate the cutting edge of the chisel with an anti-seize lubricant before each split it attempted. FASTORQ 70+ lubricant is recommended and can be purchased separately.
- ◆ Do not let the cutting chisel get dull. The cutting chisel can be re-sharpened by hand with a whetstone or on a bench grinder using a slow rpm and a fine ground wheel. Keeping the cutting chisel well lubricated and cool during sharpening will allow you to sharpen the cutting edge quickly and safely.
- ◆ After each use thoroughly clean the tool and its accessories before storage.
- ◆ Replace all thread protectors and dust covers on the tool when not in use or during storage. This will help keep any debris from entering the hydraulic system and keep the oil clean. And ready for use.
- ◆ For storage always keep your AutoSPLITTER in its supplied tool box. The supplied tool boxes have been manufactured to keep the tool and its accessories safe from any accidental damage and will increase the longevity of the tool.

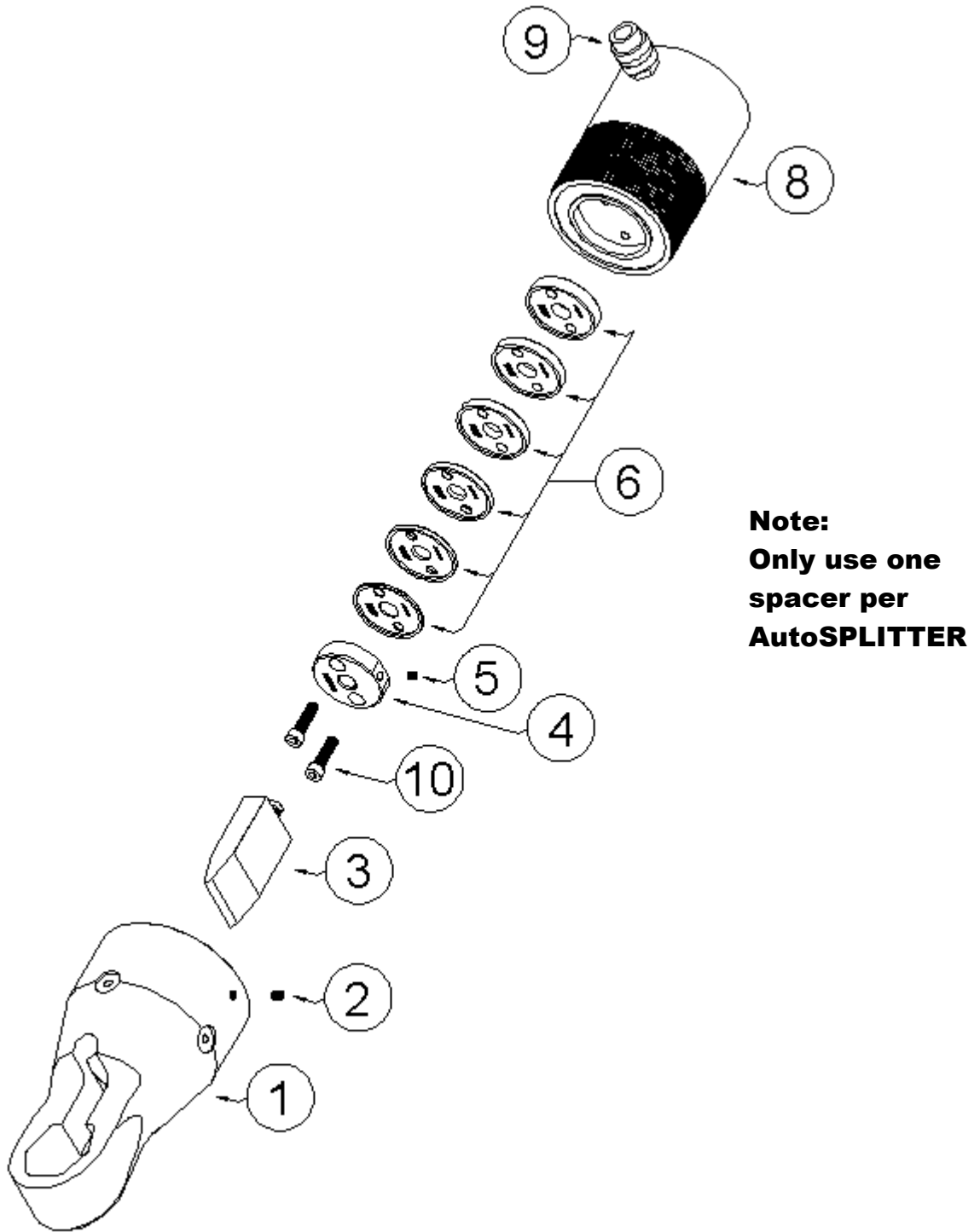
## TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Cylinder does not hold pressure	<ol style="list-style-type: none"> <li>1. Cylinder seal is leaking.</li> <li>2. Leaking fitting connection</li> <li>3. Pump malfunction</li> </ol>	<ol style="list-style-type: none"> <li>1. Change cylinder</li> <li>2. Tighten fitting connections</li> <li>3. Change pump</li> </ol>
Cylinder does not advance or only advances partially	<ol style="list-style-type: none"> <li>1. Pump release valve is open</li> <li>2. Not enough fluid in pump</li> <li>3. Air in hose lines</li> <li>4. Couplers not tight</li> <li>5. Pump reservoir too small</li> </ol>	<ol style="list-style-type: none"> <li>1. Close valve</li> <li>2. Add fluid to pump</li> <li>3. Bleed air from hose lines</li> <li>4. Tighten couplers</li> <li>5. Change pump to one with larger reservoir</li> </ol>
Cylinder advances slowly	<ol style="list-style-type: none"> <li>1. Leaking fitting connection</li> <li>2. Clogged fitting or hose</li> <li>3. Loose coupler</li> <li>4. Pump flow rate too slow</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten fitting connections</li> <li>2. Change out fittings or hoses</li> <li>3. Tighten couplers</li> <li>4. Change pump to one with faster flow rate</li> </ol>
Cylinder does not retract, retracts slowly or retracts partially	<ol style="list-style-type: none"> <li>1. Pump release valve closed</li> <li>2. Coupler not fully closed</li> <li>3. Clogged fitting or hose</li> <li>4. Damaged retraction spring (AS314 Model Only)</li> <li>5. Pump reservoir overfilled</li> </ol>	<ol style="list-style-type: none"> <li>1. Open valve</li> <li>2. Close coupler</li> <li>3. Change out fittings or hoses</li> <li>4. Replace spring</li> <li>5. Drain out excess fluid</li> </ol>
Cutting chisel does not penetrate the nut	<ol style="list-style-type: none"> <li>1. Inadequate pump pressure</li> <li>2. Incorrect spacer used</li> <li>3. Cutting chisel edge dull</li> <li>4. Housing not fully threaded onto cylinder</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase pump pressure to 10,000 psi, MAX.</li> <li>2. Change spacers</li> <li>3. Sharpen or replace cutting chisel</li> <li>4. Thread housing fully on cylinder as per assembly instructions</li> </ol>
Cutting chisel splits the nut and damages the stud threads	<ol style="list-style-type: none"> <li>1. Incorrect spacer used</li> <li>2. Housing threaded more than necessary</li> </ol>	<ol style="list-style-type: none"> <li>1. Change spacer</li> <li>2. Thread housing fully on cylinder as per assembly instructions</li> </ol>

## PARTS LIST



"TYPE 1" STYLE CHISEL HOLDER MODELS



**Note:**  
**Only use one**  
**spacer per**  
**AutoSPLITTER**

**"TYPE 2" STYLE CHISEL HOLDER MODELS**



**AUTO-SPLITTER STRAIGHT HEAD MODEL NUMBERS**

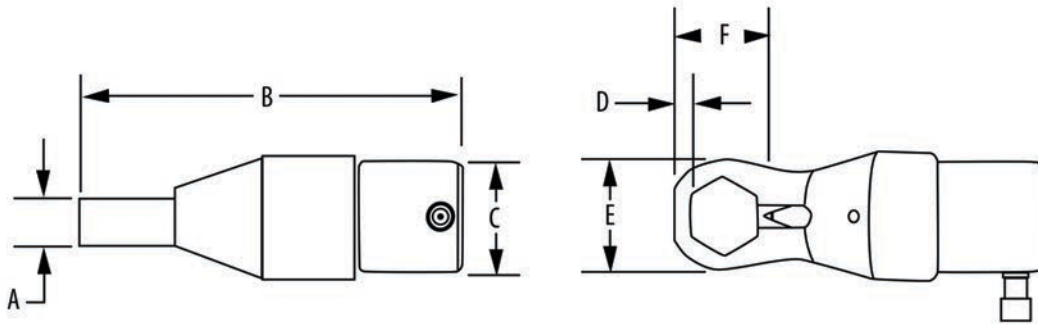
ITEM #	DESCRIPTION	AS105	AS200	AS204	AS210	AS308
1	HOUSING	C87112	C87114	D88005	D2K993	D87079
2	HOUSING SET SCREW	SSN04-20X05	SSN04-20X05	SSN6-16X12	SSN6-16X12	SSN6-16X12
3	CUTTING CHISEL	B86216	B2K980	B87090	B2K990	A92032
4	CHISEL HOLDER	B86215	B2K979	B87089	B2K989	B87089
5	CHISEL HOLDER SET SCREW	SSN6-32X04	SSN6-32X04	SSN04-20X05	SSN04-20X05	SSN04-20X05
6	SPACER SET	A99077	A2K966	A99001	A2K991	A91001
7	ADJUSTMENT SPACER	A2K682	A2K988	N/A	N/A	N/A
8	CYLINDER	C-25	C-25	C-55	C-55	C-100
9	FEMALE QUICK DISCONNECT	C604	C604	C604	C604	C604
10	CHISEL HOLDER BOLT SET A	N/A	N/A	SHCS06-16X12	SHCS06-16X12	SHCS06-16X12
	CHISEL HOLDER BOLT SET B	N/A	N/A	SHCS06-16X20	SHCS06-16X20	SHCS06-16X20
11	CHISEL HOLDER ALLEN KEY	WSS1	WSS1	WSS2	WSS2	WSS2
12	CHISEL HOLDER BOLT SET ALLEN KEY	N/A	N/A	N/A	WSS5	WSS5
13	HOUSING ALLEN KEY	WSS2	WSS2	WSS3	WSS3	WSS3
14	TOOLBOX WITH FOAM INSERT	25TB / 25TBI	25TB / 25TBI	55TB / 55TBI	55TB / 55TBI	100TB28 / 100TBI28
15	SPANNER WRENCH	N/A	N/A	N/A	N/A	N/A

**AUTO-SPLITTER STRAIGHT HEAD MODEL NUMBERS**

ITEM #	DESCRIPTION	AS314	AS404	AS500	AS506	AS608
1	HOUSING	B92035	D2K137	D2K138	D2K139	B95020
2	HOUSING SET SCREW	SSN6-16X12	SSN6-16X12	SSN6-16X12	SSN6-16X12	
3	CUTTING CHISEL	A92036	A91003	A92015	A92015	B95018
4	CHISEL HOLDER	B87089	A91004	A91004	A91004	
5	CHISEL HOLDER SET SCREW	SSN04-20X05	SSN04-20X05	SSN04-20X05	SSN04-20X05	
6	SPACER SET	A92034	A92021	A92021	A92021	B95017
7	ADJUSTMENT SPACER	N/A	N/A	N/A	N/A	
8	CYLINDER	C-100	C-150	C-150	C-150	C-250
9	FEMALE QUICK DISCONNECT	C604	C604	C604	C604	
10	CHISEL HOLDER BOLT SET A	SHCS06-16X12				
	CHISEL HOLDER BOLT SET B	SHCS06-16X20				
11	CHISEL HOLDER ALLEN KEY	WSS2	WSS2	WSS2	WSS2	
12	CHISEL HOLDER BOLT SET ALLEN KEY	WSS5				
13	HOUSING ALLEN KEY	WSS3	WSS3	WSS3	WSS3	
14	TOOLBOX WITH FOAM INSERT	100TB28 / 100TBI28	150TB / 150TBI	150TB / 150TBI	150TB / 150TBI	
15	SPANNER WRENCH	N/A	SW34154	SW34154	SW34154	

## STRAIGHT HEAD MODEL CHART

Duo/Trio Kits	Model	Stud Diameter inches (metric)	Nut Size ATF inches (mm)	A inches (mm)	B inches (mm)	C inches (mm)	D inches (mm)	E inches (mm)	F inches (mm)	Weight lb. (kg)
AS-DUO25	AS105	5/16 - 7/8 (M8 - M22)	5/8 - 1-7/16 (16 - 36)	1.50 (39)	11.00 (280)	3.97 (101)	0.42 (11)	2.87 (73)	7.48 (190)	20.0 (9.1)
	AS200	7/8 - 1-1/4 (M22 - M33)	1-5/16 - 2 (36 - 55)	1.50 (39)	11.75 (299)	3.97 (101)	0.50 (13)	3.62 (92)	8.00 (203)	21.0 (9.5)
AS-DUO 55	AS204	1-1/4 - 1-1/2 (M33 - M39)	1-7/8 - 2-3/8 (50 - 60)	2.25 (58)	16.10 (409)	5.97 (152)	0.69 (18m)	3.90 (99)	11.48 (292)	61.0 (27.7)
	AS210	1-3/8 - 1-3/4 (M36 - M45)	2-3/16 - 2-3/4 (60 - 75)	2.25 (58)	16.10 (409)	5.97 (152)	0.67 (17)	4.50 (114)	11.38 (289)	62.0 (28.1)
AS-DUO 100	AS308	1-3/4 - 2-1/4 (M45 - M56)	2-5/8 - 3-1/2 (70 - 90)	3.00 (77)	17.75 (451)	7.25 (185)	0.88 (22)	5.75 (146)	17.75 (451)	95.0 (43.1)
	AS314	2 - 2-1/2 (M52 - M64)	3 - 3-7/8 (80 - 100)	3.13 (80)	18.00 (458)	7.25 (185)	0.88 (22)	6.25 (159)	18.00 (457)	100.0 (45.4)
AS-TRIO	AS404	2-1/2 - 2-3/4 (M64 - M72)	3-3/4 - 4-1/4 (95 - 110)	3.75 (96)	22.75 (578)	9.88 (251)	1.13 (29)	7.50 (191)	18.00 (457)	205.0 (93.0)
	AS500	3 - 3-1/4 (M76 - M85)	4-1/2 - 5 (115 - 130)	4.13 (105)	23.00 (585)	9.88 (251)	1.13 (29)	9.00 (2329)	19.525 (495)	210.0 (95.3)
	AS506	3-1/4 - 3-1/2 (M85 - M90)	4-7/8 - 5-3/8 (125 - 135)	4.13 (105)	23.13 (588)	9.88 (251)	1.13 (29)	9.38 (238)	19.50 (495)	215.0 (97.5)
	AS608	3-3/4 - 4 (M95 - M100)	5-5/8 - 6-1/8 (140 - 155)	5.00 (127)	24.00 (610)	12.5 (131)	1.41 (36)	11.72 (298)	22.00 (559)	387.0 (175.5)



**AutoSPLITTER Dimensions**



## Warranty

All **AutoSPLITTER** models are covered by the FASTORQ NO B.S. Lifetime Guarantee Program. It's as simple as the name implies: any product covered by our No B.S. Lifetime Guarantee is covered for life. Period. Warranty includes seal replacement on cylinders.

### The "fine print"

All products manufactured by FASTORQ are warranted against defects of material or workmanship for the period defined by product line/model from the date shipped when these products are used within the service, specification and pressure range for which they were designed and manufactured. Warranty programs vary in length of time of coverage by product line.

All products are potentially eligible for the Warranty Extension Program. Warranty programs are for customers in the U.S. and Canada but may be extended to customers in other countries under certain circumstances. Customers must complete online or mail-in product registration. Warranties do not cover loss or theft, abuse, misuse, overloading or alteration of product or components. Freight costs to deliver product to FASTORQ is the customer's responsibility; FASTORQ pays for the return shipping costs on warranty repairs/replacements. Repair or replacement will be determined by FASTORQ technicians.

Warranties are limited to repair or replacement of parts found by FASTORQ to be defective in material or workmanship and does not extend to claims for labor, expense, or other loss or damage occasioned by such defect of material or workmanship. No unauthorized back charges will be accepted. Warranties do not cover deterioration by corrosion, erosion, or any cause of failure other than defect of material or workmanship. Purchasers are expected to determine the suitability of FASTORQ products of their particular purposes. No other warranty, expressed or implied, will be allowed without the written agreement of FASTORQ. Any adjustments to this warranty must first be approved in writing by FASTORQ.