FASTORQ®

The Speed of Innovation.

AutoSPLITTER

ANGLE HEAD DOUBLE CUTTING MODEL

HYDRAULIC NUT SPLITTER

OPERATION AND MAINTENANCE MANUAL

CONTENTS

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

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

WHEN SPLITTINGS METAL OBJECTS THERE IS A CHANCE THAT DEBRIS MAY BE EJECTED AS THE SPLIT OCCURS, EYE PROTECTION AND SAFETY GLOVES ARE ENCOURAGED AT ALL TIMES WHILE IN OPERATION. DO NOT SPLIT NUTS INTO ANY PIECES SMALLER THAT HALF THE NUT'S ORIGINAL SIZE.

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.

NEVER EXCEED 10,000 PSI HYDRAULIC PRESSURE WHILE OPERATING THE AUTOSPLITTER.

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 Angle Head Double Cutting AutoSPLITTER

	Available FASTORQ Power Units					
AutoSPLITTER Model	105-A Air Driven	150-H Hand Driven	150-F Foot Driven	205-A Air Driven	115-E Electric Driven	215-E Electric Driven
AS105AH-DC	X					X
AS200AH-DC	X	X	X	X	X	X
AS204AH-DC	X	X	X	X	X	X
AS210AH-DC	X	X	X	X	X	X
AS308AH-DC		X	X	X	X	X
AS314AH-DC		X	X	X	X	X
AS404AH-DC		X	X	X	X	X

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

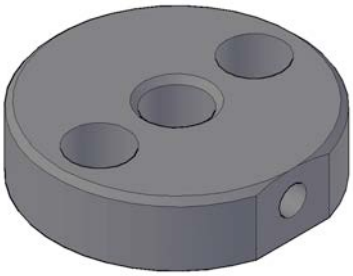
Pump Power Requirements for Non-FASTORQ Pumps

Straight Head Models	Valve Type	Hose Rating	Usable Minimum Capacity
AS105AH-DC	2-Way	10,000 PSI	10 in^3
AS200AH-DC	2-Way	10,000 PSI	10 in^3
AS204AH-DC	2-Way	10,000 PSI	44 in^3
AS210AH-DC	2-Way	10,000 PSI	44 in^3
AS308AH-DC	2-Way	10,000 PSI	82 in^3
AS314AH-DC	2-Way	10,000 PSI	82 in^3
AS404AH-DC	2-Way	10,000 PSI	140 in^3

ASSEMBLY

Within the AutoSPLITTER there are three “Model” types, they are the Straight Head Models, Angle Head Models and Angle Head Double Cutting 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. A spacer is not required for the largest nut size for each model.
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. A spacer is not required for the largest nut size for each model.
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 to 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. Slide the stationary chisel into the slot opposite the cutting chisel.
12. Insert and tighten retaining screw in the stationary chisel.
13. Your AutoSPLITTER is now fully assembled and ready for use.

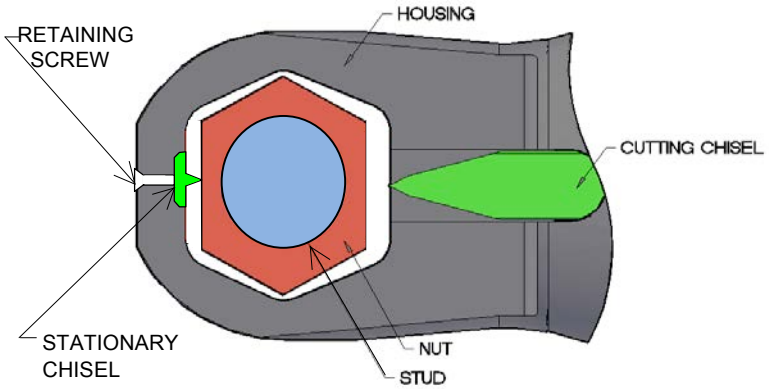
Your completely assembled AutoSPLITTER should resemble the illustration below.

Assembled AutoSPLITTER

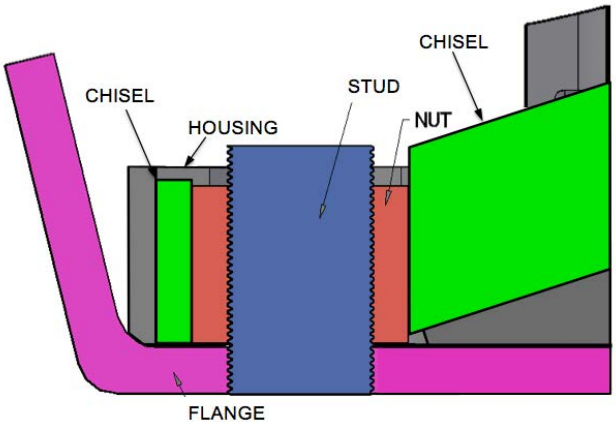
OPERATION

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

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



PROPER OVERHEAD ORIENTATION



PROPER PROFILE ORIENTATION

3. Pressurize the cylinder to extend the chisel slowly until both cutting edges make contact with the flat nut face. Verify that the cutting edges are centered on the flats 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 twice, stop pressurizing the cylinder.

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 edges of the chisels with an anti-seize lubricant before each split it attempted. FastLUBE 70+ lubricant is recommended and can be purchased separately.

- Do not let the cutting chisels get dull. The cutting chisels 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.

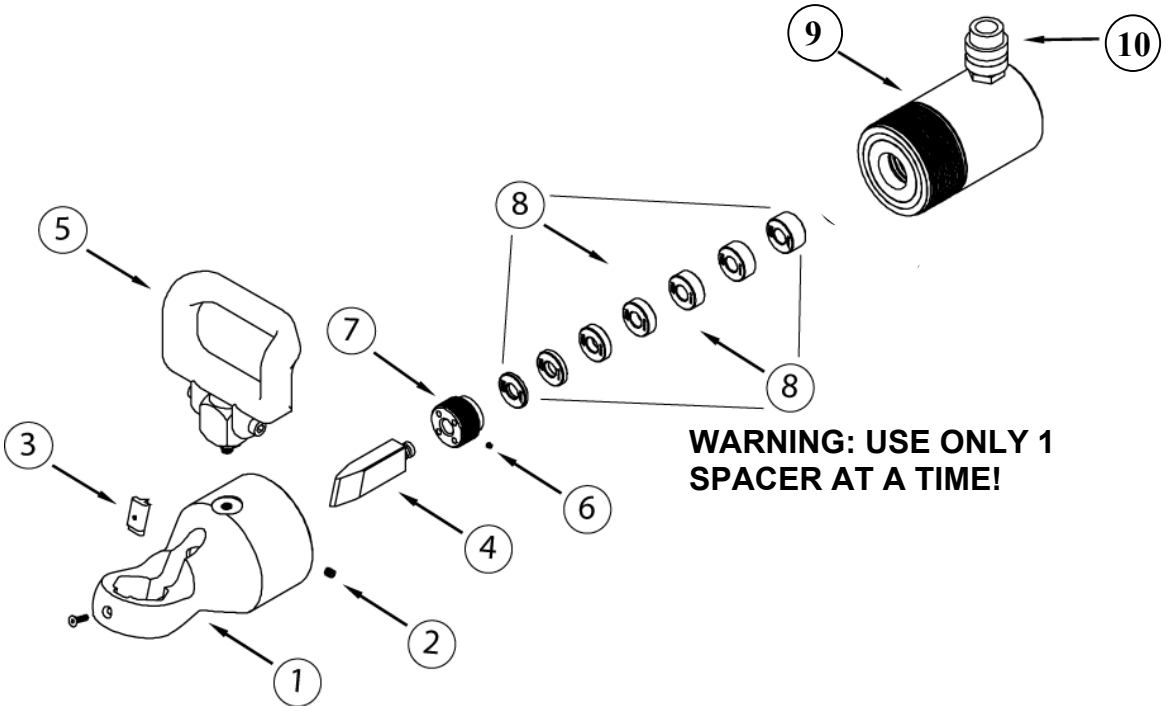
- For storage always keep your AutoSPLITTER in its supplied tool box. The supplied tool boxes have been manufactured to keep the tool and its accessories safe from any accidental damage and will increase the longevity of the tool.

TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
Cylinder does not hold pressure	1. Cylinder seal is leaking. 2. Leaking fitting connection 3. Pump malfunction	1. Change cylinder 2. Tighten fitting connections 3. Change pump
Cylinder does not advance or only advances partially	1. Pump release valve is open 2. Not enough fluid in pump 3. Air in hose lines 4. Couplers not tight 5. Pump reservoir too small	1. Close valve 2. Add fluid to pump 3. Bleed air from hose lines 4. Tighten couplers 5. Change pump to one with larger reservoir
Cylinder advances slowly	1. Leaking fitting connection 2. Clogged fitting or hose 3. Loose coupler 4. Pump flow rate too slow	1. Tighten fitting connections 2. Change out fittings or hoses 3. Tighten couplers 4. Change pump to one with faster flow rate
Cylinder does not retract, retracts slowly or retracts partially	1. Pump release valve closed 2. Coupler not fully closed 3. Clogged fitting or hose 4. Damaged retraction spring 5. Pump reservoir overfilled	1. Open valve 2. Close coupler 3. Change out fittings or hoses 4. Replace spring 5. Drain out excess fluid
Cutting chisel does not penetrate the nut	1. Inadequate pump pressure 2. Incorrect spacer used 3. Cutting chisel edge dull 4. Housing not fully threaded onto cylinder	1. Increase pump pressure to 10,000 psi, MAX. 2. Change spacers 3. Sharpen or replace cutting chisel 4. Thread housing fully on cylinder as per assembly instructions
Cutting chisel splits the nut and damages the stud threads	1. Incorrect spacer used 2. Housing threaded more than necessary	1. Change spacer 2. Thread housing fully on cylinder as per assembly instructions

PARTS LIST

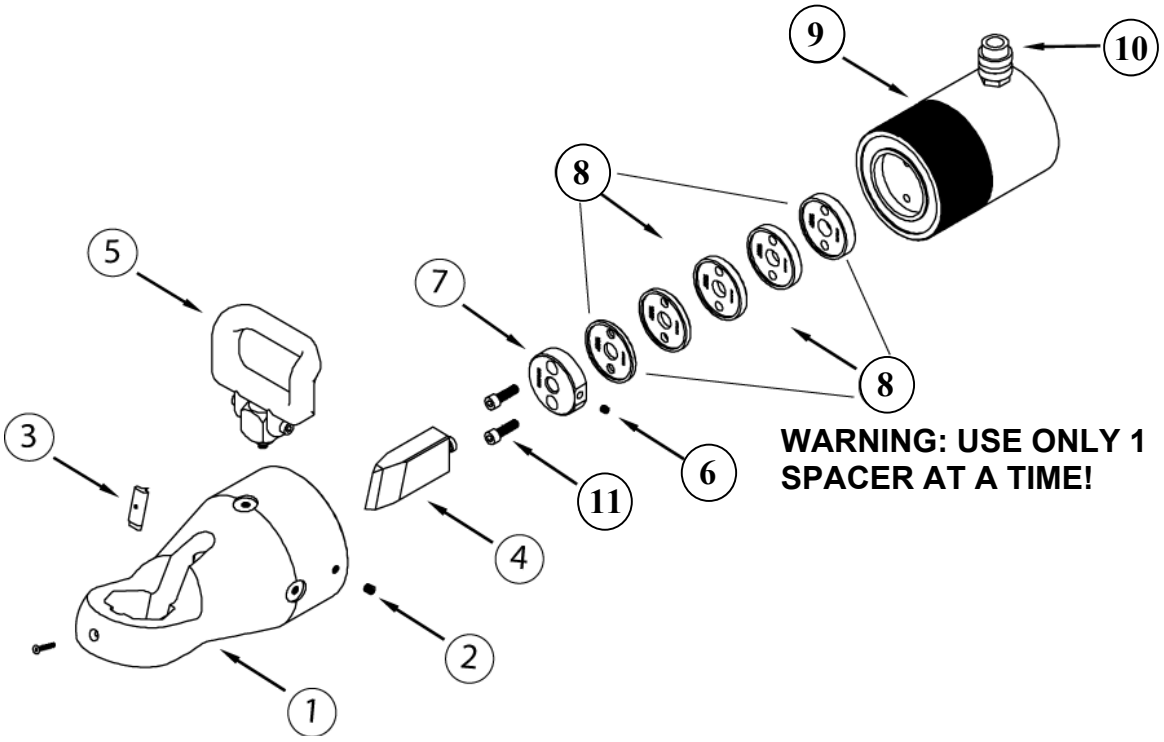
TYPE 1 CHISEL HOLDER MODELS



WARNING: USE ONLY 1 SPACER AT A TIME!

PARTS LIST

TYPE 2 CHISEL HOLDER MODELS



PARTS LIST

ITEM #	DESCRIPTION	AS105AH-DC	AS200AH-DC	AS204AH-DC	AS210AH-DC	AS308AH-DC	AS314AH-DC	AS404AH-DC
1	HOUSING	A2K647	B2K1000	B2K974	C97001	B2K1056	ASH314LC8HP002	ASH404LC8HP002
2	HOUSING SET SCREW	SSN04-20X05	SSN04-20X05	SSN6-16X12	SSN6-16X12	SSN6-16X12	SSN6-16X12	SSN6-16X12
3	STATIONARY CHISEL	A2K646	B2K1001	B2K978	A97058	A2K705	ASH314LC8HP004	ASH404LC8HP004
4	CUTTING CHISEL	A94057	A94057	A92031	A92031	A92032	A92032	ASH404LC8HP003
5	HANDLE	H55-3-1806-106	H55-3-1806-106	H55-3-1806-106	H55-3-1806-106	H55-3-1806-106	H55-3-1806-106	A92030
6	CHISEL HOLDER SET SCREW	SSN6-32X04	SSN6-32X04	SSN04-20X05	SSN04-20X05	SSN04-20X05	SSN04-20X05	SSN04-20X05
7	CHISEL HOLDER	B86215	B86215	B87089	B87089	B87089	B87089	A2K1065
8	SPACER SET	A99077	A92K966	A99001	A99001	A91001	A92034	A92021
9	CYLINDER	C-25	C-25	C-55	C-55	C-100	C-100	C-150
10	FEMALE QUICK DISCONNECT	C604	C604	C604	C604	C604	C604	C604
11	CHISEL HOLDER BOLT SET A	N/A	N/A	SHCS06-16X12	SHCS06-16X12	SHCS06-16X12	SHCS06-16X12	N/A
	CHISEL HOLDER BOLT SET B	N/A	N/A	SHCS06-16X20	SHCS06-16X20	SHCS06-16X20	SHCS06-16X20	N/A
12	CHISEL HOLDER ALLEN KEY	WSS1	WSS1	WSS2	WSS2	WSS2	WSS2	WSS2
13	CHISEL HOLDER BOLT SET ALLEN KEY	N/A	/A	SHCS06-16X20	SHCS06-16X20	WSS5	WSS5	SW34154
14	HOUSING ALLEN KEY	WSS2	WSS2	WSS3	WSS3	WSS3	WSS3	WSS3
15	TOOLBOX WITH FOAM INSERT	25TB / 25TBI	25TB / 25TBI	55TB / 55TBI	55TB / 55TBI	100TB28 / 100TBI28	100TB28 / 100TBI28	150TB / 150TBI

LIMITED WARRANTY

FASTORQ warrants its products against defects in workmanship and materials for a period of 1 year from the date of delivery to the customer. The warranty does not include standard wear and tear, abuse or misuse, overloading or altering of any components in part or whole.