EMERSON

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BULLETIN

NO: **04-18**

DATE: **04/17/18**

TO: **Emerson Wholesalers**

SUBJECT: **Unloader Valve Assembly Supplier Changes**

Product Supplier Changes

In 2013, we transitioned suppliers (from Flow Controls to Parker) for unloader (4D/6D/8D & 3D Moduload™) valve assemblies, in an effort to continuously provide the best priced capacity control hardware to our customers. This change did not affect the function of the assembly. The purchased kit numbers did not change, however the components inside the kits did carry new part numbers. We are ***now*** in the process of moving from Parker to San Hua, as Parker has discontinued their line of unloader valves. See Figure 1.

The Flow to Parker transition was implemented on 6/24/2013. The **NEW** Supplier transition (Parker to San Hua) began on 4/17/2017 and will be implemented on a *part-by-part* basis, as the remaining Parker inventory is consumed. Parker inventory has already been depleted for the kits shaded in **yellow** below and any new kits shipped from the Mt. Comfort Distribution Center will contain the NEW San Hua part number.

Reference Chart for Old, Current and New Part Numbers:

Kit Number	Unloader Valve Part Number			Coil Part Number			Gasket Part Number (No Change)
	Flow Part Number (OLD)	Parker Part Number (CURRENT)	San Hua Part Number (NEW)	Flow Coil Part Number (OLD)	Parker Coil Part Number (CURRENT)	San Hua Coil Part Number (NEW)	
998-0326-00	510-0326-00	510-0713-00	010-0876-00	Valve Body Only	Valve Body Only	Valve Body Only	020-0783-00
998-0326-01[1]	510-0326-09	510-0713-09	010-0876-00	023-0039-09	023-0091-00	023-0110-00	" " "
998-0326-02	510-0326-10	510-0713-10	510-0876-01	023-0039-10	023-0091-01	023-0110-01	" " "
998-0326-03	510-0326-11	510-0713-11	510-0876-02	023-0039-11	023-0091-02	023-0110-02	" " "
998-0212-00	510-0487-00	510-0714-00	010-0877-00	Valve Body Only	Valve Body Only	Valve Body Only	" " "
998-0212-01	510-0487-05	510-0714-05	510-0877-00	023-0039-09	023-0091-00	023-0110-00	" " "
998-0212-02	510-0487-06	510-0714-06	510-0877-01	023-0039-10	023-0091-01	023-0110-01	" " "
998-0212-03	510-0487-07	510-0714-07	510-0877-02	023-0039-11	023-0091-02	023-0110-02	" " "
998-0212-04[2]	510-0487-08	510-0714-08	N/A	023-0039-12	023-0091-03	N/A	N/A
998-0213-00	N/A	510-0721-00	010-0878-00	N/A	Valve Body Only	Valve Body Only	020-1465-00
998-0213-01	N/A	510-0721-01	510-0878-00	N/A	023-0091-00	023-0110-00	" " "
998-0213-02	N/A	510-0721-02	510-0878-01	N/A	023-0091-01	023-0110-01	" " "
998-0213-03	N/A	510-0721-03	510-0878-02	N/A	023-0091-02	023-0110-02	" " "

Table 1

[1]**For 998-0326-01, Parker 510-0713-09 will be replaced by San Hua valve 010-0876-00 and San Hua coil 023-0110-00.**

[2]**998-0212-04 is obsolete with no San Hua replacement.**

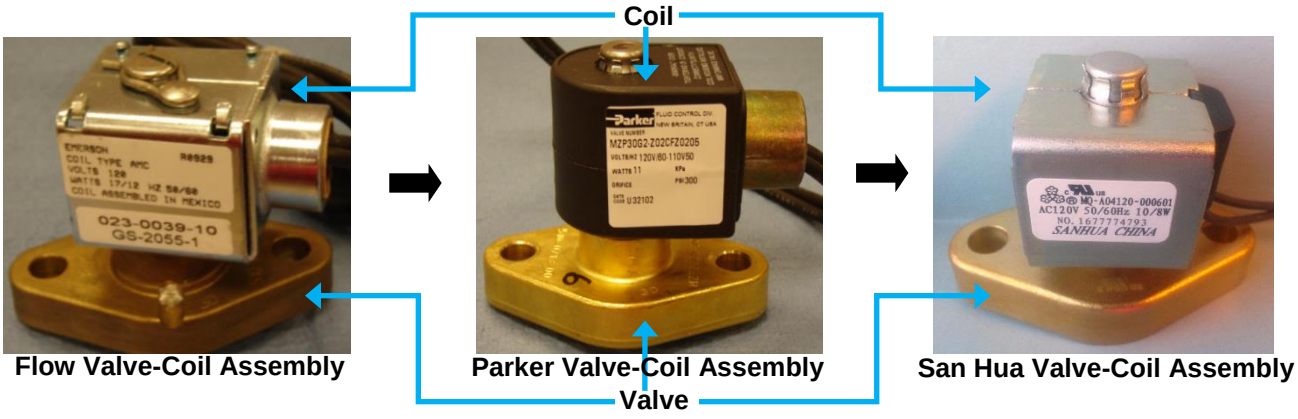

Figure 1

Specifications:

Flow Controls vs. Parker

The Flow Controls and Parker valve bodies have identical port sizes and locations and meet the same pressure differential, working pressure and leak specifications. The Parker coils function at the same voltages that were previously offered. The Flow Controls and current Parker valve assemblies were/are assembled with the same gaskets and bolts.

Key differences between the Flow Controls Valve and the Parker Valve…

- The way the coil attaches to the valve stem. The Flow coil has a cotter pin on top to hold the coil in place on valve stem. The Parker coil has circular clips that lock into place when the coil is pushed onto valve stem.
- The Flow coil has a metal casing and the Parker coil is in a plastic (FC) housing.
- The Flow coil has 48" electrical leads and the Parker coil has 45" electrical leads.

Valves and coils should not be used interchangeably between Flow and Parker parts. Combining valves and coils from different manufacturers did not receive UL approval.

Parker vs. San Hua

The Parker and San Hua valve bodies have identical port sizes and locations and meet the same pressure differential, working pressure and leak specifications. The San Hua coils function at the same voltages that were previously offered. The Parker and San Hua coil has circular clips that lock into place when the coil is pushed onto valve stem. Parker offered a 480V coil that was discontinued, due to no demand. The current Parker and the NEW San Hua valve assemblies are/will be assembled with the same gaskets. The stud bolts will be different as noted below, due to the height difference of the valve.

Key differences between the current Parker Valve and the NEW San Hua Valve…

- The Parker coil is in a plastic (FC) housing and the San Hua coil is in a metal casing.
- The Parker coil has 45" electrical leads and the San Hua coil has 45.28" electrical leads.

Valves and coils should not be used interchangeably between Parker and San Hua parts. Combining valves and coils from different manufacturers did not receive UL approval.
****Exception*: There is UL approval to use a Flow Controls coil on a Sanhua valve.***

Longer Studs: Due to the 1/8" increased thickness of the San Hua valve base (see Figures 2-4), the transition from Parker to San Hua will require longer mounting studs in some kits. See Table 2. Refer to AE-1219 **https://climate.emerson.com/CPID/GRAPHICS/Types/AEB/ae1219.pdf** for torque values. We will be adding the longer studs and nuts to the affected 4D/6D 998-0212-XX Unloader

Valve Kits, 4D/4R/6D/6R Discus II (DII) Capacity Control Conversion Kits and 4D/4R Cylinder Head Kits only. We will also provide these extra studs and nuts to customers who have already received kits (containing **San Hua** valves) that were impacted by this change. 3D and Discus III (DIII) kits will **not** be impacted by this transition. See Tables 3-5 below for specific kits.

Figure 2

Parker Valve & Coil

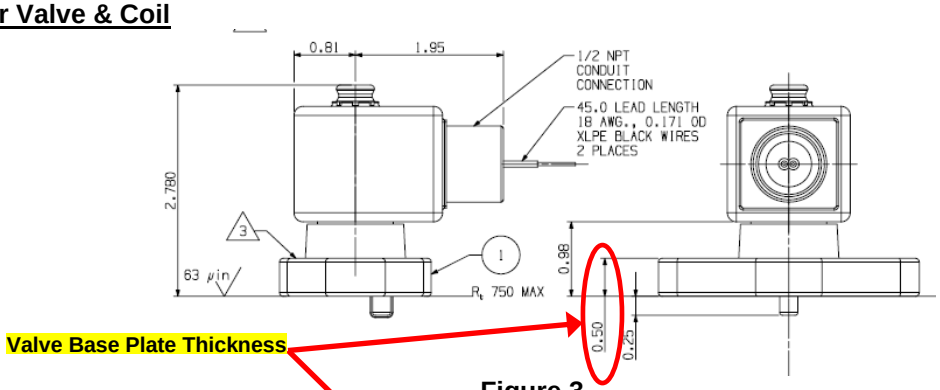

Figure 3

San Hua Valve & Coil

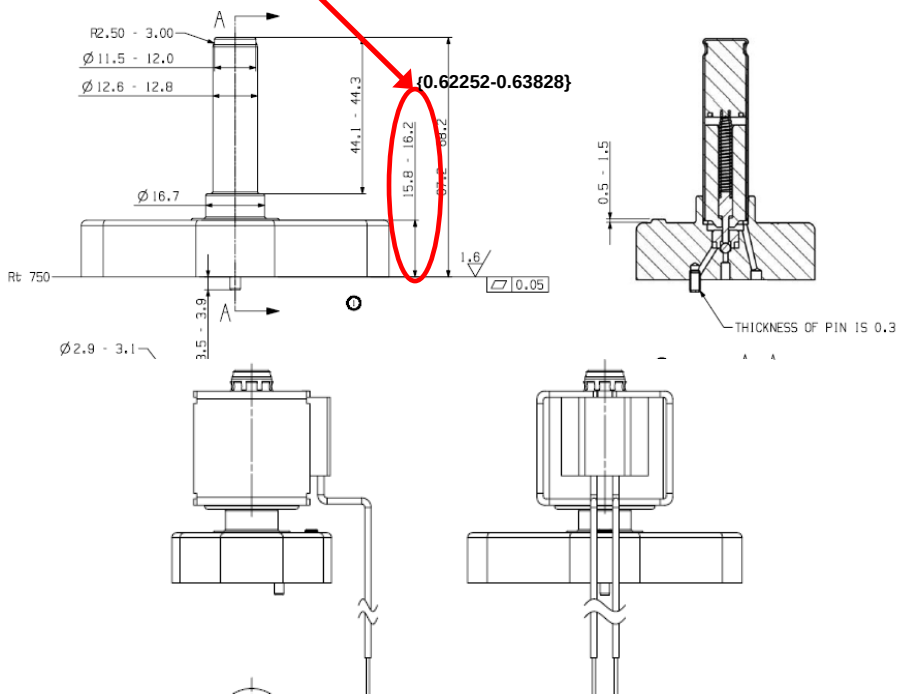

Figure 4

Current Stud Part Number	Current Stud Length	New Stud Part Number	New Stud Length
103-0087-04	6.062”	103-0087-07	6.375”
103-0087-02	1.750”	103-0087-08	2.00”
103-0087-03	4.50”	103-0087-09	5.00”
103-0087-01	5.562”	103-0087-10	6.062”

Table 2

Coil Brackets: The new coils were designed without a conduit connection which is required for UL approval on voltages greater than 24 volts. Emerson has implemented an interim solution of adding a bracket to the new coils that will allow a conduit connection. Refer to Figure 5. The missing coil conduit connection affects all new unloader valve and coils assemblies including those in unloader valve & coil kits and capacity conversion control kits. See Table 6 for a list of affected kits.

Figure 5

Rework Plan: Once the new studs are available, Emerson will ship studs and will provide instructions for Wholesalers to the correct 4D/6D DII & 4R/6R unloader valve assembly kits at no cost. Once the coil modification is approved, Emerson will ship conduit adapter brackets (along with instructions) to attach to the new valve/coil assemblies that some Wholesalers may have received.

NEW Longer Studs	
Unloader Valve Kits For all DII 4D/6D Models	
We will add Qty 1 ea of stud p/ns 103-0087-07, 103-0087-08, & 103-0087-09, Qty 2 of 103-0087- 10 and Qty 2 of nut p/n 101-7000-04 to the following kits:	
998-0212-00	Unloader Valve Less Coil.
998-0212-01	Unloader Valve & Coil 24V.
998-0212-02	Unloader Valve & Coil 120V.
998-0212-03	Unloader Valve & Coil 240V.
Capacity Control Conversion Kits For DII 4D/6D Tall Head Models	
We will change stud p/n 103-0087-04 to 103-0087-07 and stud p/n 103-0087-02 to 103-0087-08 in the following kits:	
998-0119-31	Floating Reed 24V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.
998-0119-32	Floating Reed 120V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.
998-0119-33	Floating Reed 240V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.

Table 3

NEW Longer Studs Cont'd	
998-0119-35	Floating Reed 24V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-0119-36	Floating Reed 120V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-0119-37	Floating Reed 240V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-2119-31	Delta Reed 24V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.
998-2119-32	Delta Reed 120V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.
998-2119-33	Delta Reed 240V. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, 4DJ3 to 4DR3, 4DB3 to 4DC3, 6DB3 to 6DW3 or 6DY3, 6DG3 to 6DM3 or 6DN3, 6DH3 to 6DK3 or 6DP3, & 6DJ3 to 6DR3 or 6DS3.
998-2119-35	Delta Reed 24V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-2119-36	Delta Reed 120V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-2119-37	Delta Reed 240V. Converts 4DL3 to 4DP3, 4DT3 to 4DS3, 6DL3 to 6DC3 or 6DD3, & 6DT3 to 6DE3 or 6DF3.
998-2119-40	Delta Reed 220V ISD Models. Converts 4DA3 to 4DE3, 4DH3 to 4DK3, & 4DJ3 to 4DR3.
998-2119-41	Delta Reed 220V ISD Models. Converts 4DL3 to 4DP3 & 4DT3 to 4DS3.
Capacity Control Conversion Kits For DII 4D/6D Short Head Models	
We will change stud p/n 103-0087-03 to 103-0087-09 and stud p/n 103-0087-02 to 103-0087-08 in the following kits:	
998-0119-22	Floating Reed 24V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 to 6DE1 or 6DF1 & 6DJ1 to 6DR1 or 6DS1.
998-0119-23	Floating Reed 120V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 TO 6DE1 or 6DF1 & 6DJ1 to 6DR1 or 6DS1.
998-0119-24	Floating Reed 240V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 TO 6DE1 or 6DF1 & 6DJ1 to 6DR1 or 6DS1.
998-0119-27	Floating Reed 24V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.
998-0119-28	Floating Reed 120V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.
998-0119-29	Floating Reed 240V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.
998-2119-22	Delta Reed 24V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 to 6DE1 or 6DF1, & 6DJ1 to 6DR1 or 6DS1.
998-2119-23	Delta Reed 120V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 to 6DE1 or 6DF1, & 6DJ1 to 6DR1 or 6DS1.
998-2119-24	Delta Reed 240V. Converts 4DA1 to 4DE1, 4DH1 to 4DK1, 4DJ1 to 4DR1, 6DH1 to 6DK1 or 6DP1, 6DL1 to 6DC1 or 6DD1, 6DT1 to 6DE1 or 6DF1, & 6DJ1 to 6DR1 or 6DS1.
998-2119-27	Delta Reed 24V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.
998-2119-28	Delta Reed 120V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.
998-2119-29	Delta Reed 240V. Converts 4DL1 to 4DP1 & 4DT1 to 4DS1.

Table 4

NEW Longer Studs Cont'd	
Capacity Control Conversion Kits For 4R-2*00/6R-3*00 Models	
We will change stud p/n 103-0087-03 Qty 2 to 103-0087-09 Qty 2 in the following kits:	
998-0119-00	With Valve Plate 24V. Converts 4RA to 4RE.
998-0119-01	With Valve Plate 120V. Converts 4RA to 4RE.
998-0119-02	With Valve Plate 240V. Converts 4RA to 4RE.
998-0119-04	With Valve Plate 24V. Converts 4RH to 4RK.
998-0119-05	With Valve Plate 120V. Converts 4RH to 4RK.
998-0119-06	With Valve Plate 240V. Converts 4RHto 4RK.
998-0119-08	Less Valve Plate 24V. Converts 4RA to 4RE & 4RH to 4RK.
998-0119-09	Less Valve Plate 120V. Converts 4RA to 4RE & 4RH to 4RK.
998-0119-10	Less Valve Plate 240V. Converts 4RA to 4RE & 4RH to 4RK.
Capacity Control Conversion Kits For 4R-1/4R-2-3000-TSK/6RS2-4000-TSK Models	
We will change stud p/n 103-0087-01 Qty 2 to 103-0087- 10 Qty 2 in the following kits:	
998-0119-16	Less Valve Plate 24V. Converts 4RJ to 4RR.
998-0119-17	Less Valve Plate 120V. Converts 4RJ to 4RR.
998-0119-18	Less Valve Plate 240V. Converts 4RJ to 4RR.
Unloader Cylinder Head Kits	
We will add Qty 2 of stud p/n 103-0087-09 and Qty 2 of nut p/n 101-7000-04 to the following kits:	
998-0119-20	For 4RE & 4RK.
We will add Qty 2 of stud p/n 103-0087- 10 and Qty 2 of nut p/n 101-7000-04 to the following kit:	
998-0119-21	For 4RR.
We will add Qty 1 ea of stud p/ns 103-0087-07 & 103-0087-08 and Qty 2 of nut p/n 101-7000-04 to the following kit:	
998-0119-39	For 4DC3, 4DE3, 4DK3, 4DN3, 4DP3, 4DR3, 4DS3, & 4DT3.
We will add Qty 1 ea of stud p/ns 103-0087-08 & 103-0087-09 and Qty 2 of nut p/n 101-7000-04 to the following kit:	
998-0119-26	For 4D*1 & 6D*1 (Short Head) Floating Reed Models.
998-2119-26	For 4D*1 & 6D*1 (Short Head) Delta Reed Models.

Table 5

Kits That Require a Coil Bracket			
998-0326-01	**998-0119-09**	**998-2119-32**	**998-3119-28**
998-0326-02	**998-0119-17**	**998-2119-36**	**998-3119-29**
998-0326-03	**998-0119-23**	**998-0213-01**	**998-3119-31**
998-0212-01	**998-0119-28**	**998-0213-02**	**998-3119-32**
998-0212-02	**998-0119-32**	**998-0213-03**	**998-3119-33**
998-0212-03	**998-0119-36**	**998-3119-22**	**998-3119-35**
998-0119-01	**998-0212-02**	**998-3119-23**	**998-3119-36**
998-0119-05	**998-2119-23**	**998-3119-24**	**998-3119-37**
	998-2119-28	**998-3119-27**	

Table 6

For additional questions please contact your Emerson Sales Manager or Application Engineer.