

## F1 Torque Chart

Pressure In PSI	Torque			Pressure In Bars
	FT.LBS.	KGM	NM	
1500	170	24	230	104
1600	183	25	248	110
1800	209	29	283	124
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2000	235	33	319	138
2200	259	36	351	152
2400	283	39	384	165
2600	307	43	416	179
2800	331	46	449	193
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3000	355	49	481	207
3200	380	53	515	220
3400	405	56	549	234
3600	430	60	583	248
3800	455	63	617	262
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4000	480	67	651	276
4200	504	70	683	290
4400	528	73	716	303
4600	552	77	748	317
4800	576	80	781	331
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5000	600	83	813	345
5200	624	87	846	358
5400	648	90	878	372
5600	672	93	911	386
5800	696	97	943	400
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6000	720	100	976	414
6200	744	103	1009	427
6400	768	107	1041	441
6600	792	110	1074	455
6800	816	113	1106	468
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7000	840	117	1139	482
7200	864	120	1171	496
7400	888	123	1204	510
7600	912	127	1236	524
7800	936	130	1269	538
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8000	960	133	1301	552
8200	984	137	1334	565
8400	1008	140	1366	579
8600	1032	143	1399	593
8800	1056	147	1432	607
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9000	1080	150	1464	620
9200	1104	153	1497	634
9400	1128	157	1529	648
9600	1152	160	1562	662
9800	1176	163	1594	676
10000	1200	167	1627	690

# IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** Your **HYTORC TORQUE MACHINE** is a power tool, and as with any power tool, certain safety precautions should be observed to avoid accidents or personal injury. The following tips will assist you.

- **READ ALL INSTRUCTIONS.**
- **KEEP WORK AREA CLEAN AND WELL LIT.**
- **CONSIDER WORK AREA ENVIRONMENT.** Electrical Pumps should never be used in an atmosphere which can be considered potentially volatile. If there is any doubt, use an air pump. Also Note: metal to metal contact can cause sparks, precautions should be taken.
- **AVOID PREMATURE TOOL STARTING.** The Pump Remote Control is for the **TOOL OPERATOR** only.
- **STAY CLEAR DURING OPERATION.** In most cases, the tool will allow “hands free” operation. If the tool must be held or steadied during operation, use alternative means of securing the tool to the application
- **GUARD AGAINST ELECTRIC SHOCK.** Ensure the pump is properly grounded and the proper voltage is being used.
- **STORE IDLE TOOLS.** When not in use, tool and accessories should be properly stored to avoid deterioration
- **USE RIGHT TOOL.** Don't force small tools or attachments to do the job of a larger tool. Don't use a tool for purposes not intended.
- **PROPER SAFETY ATTIRE.** When handling/operating hydraulic equipment use work gloves, hard hats, safety shoes and other applicable clothing.
- **USE SAFETY GLASSES.**
- **MOVING EQUIPMENT.** Do not use hydraulic hoses, uni-swivels, pump power or remote cords as means of moving the equipment.
- **MAINTAIN TOOLS WITH CARE.** For top performance, inspect tools, powerpack and accessories for visual damage frequently and always prior to use. Always follow instruction for proper tool and pump maintenance. Refer to the Operations Maintenance Section for further clarification
- **STAY ALERT.** Watch what you are doing. Use Common sense. Do not use power equipment under the influence of any mood altering substances.
- **PRIOR TO OPERATION**  
Ensure that all hydraulic connections are securely connected and there is no leakage  
Verify that the Hydraulic hoses are not kinked or otherwise damaged.  
Ensure the square drive and its retainer are fully and securely engaged.  
Be certain that all connectors, elbows, fitting and swivels are not bent, loose or damaged.
- **PRIOR TO USE.**  
Check sockets for size, quality and flaws. (Do not use if questionable)  
Cycle tool to ensure proper function.  
Locate a solid, secure reaction point.  
Be sure the reaction arm retaining clamp is fully engaged.  
Be sure the hydraulic hoses are free of the reaction point.  
Pressurize the system momentarily; if the tool tends to “ride up” or to “creep”, stop and re-adjust the reaction arm to a more solid and secure position.

**NOTE:** Remain clear of the reaction arm during operation and never put body parts between reaction arm and reaction surfaces.

- **ALWAYS USE QUALITY ACCESSORIES.** Always use top quality impact sockets in good condition which are the correct size and fully engage the nut. Hidden flaws, however, remain a possibility which could cause breakage, so stay clear of sockets during operation
- **DO NOT USE** other equipment to enhance performance (Hammer on Socket/Tool)

**NOTE:** Hytorc Pumps are designed to operate Hytorc Tools only. Damage may occur to the pump or the product that is being operated due to misuse.

## SAVE THESE INSTRUCTIONS FOR FUTURE USE!