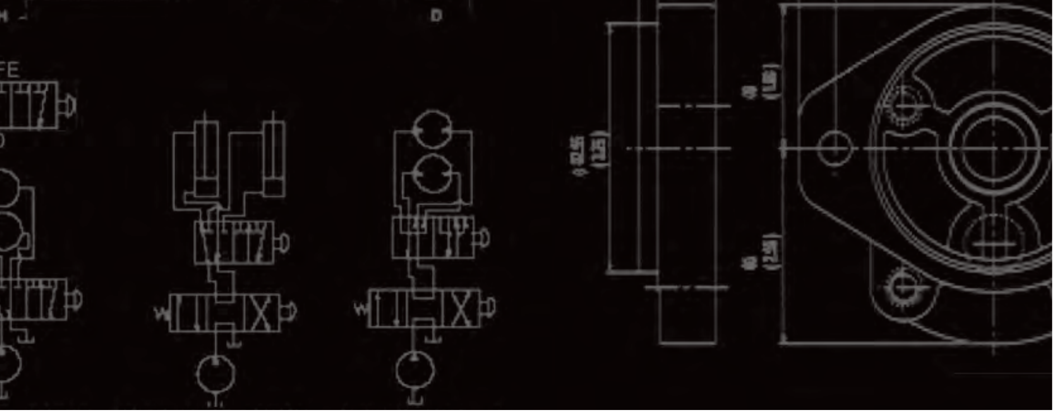

ATELIER HYDRAULUC

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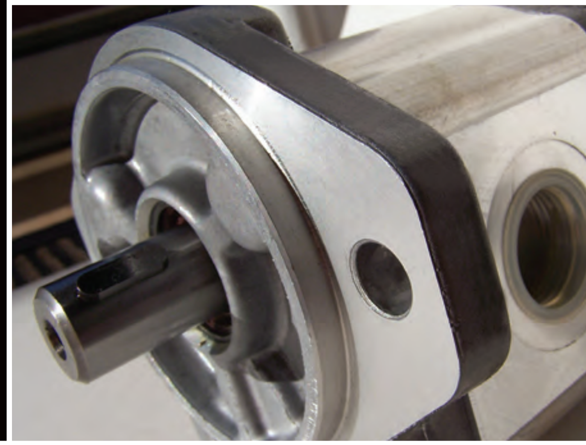
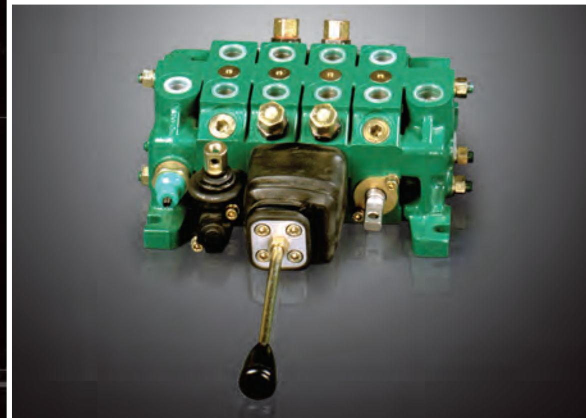


- HYDRAULIC CYLINDERS
- MOTORS
- POWER UNITS
- ELECTRIC MOTORS
- PUMPS
- VALVES, SUBPLATES & MANIFOLDS
- DIVIDERS
- ACCUMULATORS
- FILTERS
- SENSOR ACCESSORIES
- RESERVOIRS
- PNEUMATICS



ABOUT US

Since its founding, Hydrolico International has developed a solid expertise based on the strategy of studying its customers'needs and requests. Knowing how to adapt to market pressures (globalization, economic situation, etc.), Hydrolico has developed strategic alliances that have allowed it to offer products with a quality/price ratio unmatched in our market. We have set new norms. Over the years, Hydrolico International has built up an enviable experienced team, carving out a place among the market leaders in hydraulics and creating a strong reputation in North America. At Hydrolico International Inc., we continuously seek to improve our products and services in order to be your fluid power supplier of choice.In addition to our existing products, Hydrolico has now become the North American Agent for EMC® Pneumatics & automation.

Manufacturing & Customized products

In order to become more diverse in industrial products, Hydrolico International Inc. signed new distribution agreement with worldwide multinationals. This will allow us to provide competitively priced products for all your hydraulic needs.The brand new Canadian and Asian facilities, increased our manufacturing capacity to produce our cylinders, manifolds and HC hydrocustom component. Whereby we merged to it a hydraulic, pneumatic & automation technical department with solution specialists, in our Canadian and U.S. facilities to produce standard and custom assemblies with efficiency.

Service, Sales & Efficiency

We are your hydraulics specialist. Our main objective is your complete satisfaction. Hydrolico offers reliable, proven and durable products in accordance with application and technical specifications.Our experienced sales team along with our professional, attentive customer service department will work in unison with our technical division to support your application needs.

Meeting and exceeding your demands are our priorities. Hydrolico thus offers you:

- A wide range of warehoused products that can be modified and altered to your specifications.
- Points of sales across Canada and the United States through Hydrolico US facilities.
- Facilities for production in Asia with on-site supervision by Hydrolico personnel.
- Customized local production and prototypes available through our Canadian plant and affiliated partners.

We offer a full hydraulic & pneumatic component repair modification and installation service. We have surrounded our core products with several major brands of complementary products, providing a complete line to meet our customer's demand.This authorized distribution status, makes us a one stop supplier for all your hydraulic and pneumatic essentials.

Custom engineering & manufacturing processes

Regardless how stringent your needs are, our team of experienced engineers and technicians can propose components and systems adapted to your requirements. We listen to our customers to offer innovative solutions.

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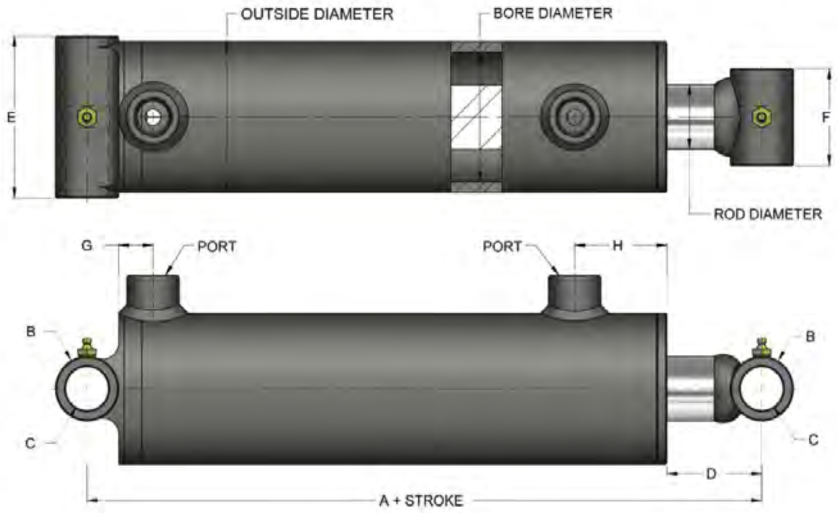
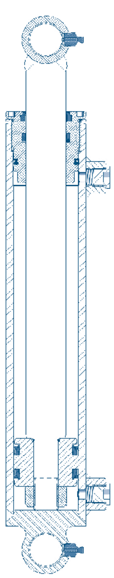


PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD DIAMETER	A	B	C	D	E	F	G	H	PORTS
BU15XX-S	1.50"	1.875"	1.00"	8.00"	1.25"	0.76"	2.62"	2.25"	2.00"	1.06"	1.87"	SAE 4
BU20XX-S	2.00"	2.375"	1.25"	8.00"	1.50"	1.01"	2.25"	2.75"	2.25"	1.00"	2.06"	SAE 6
BU25XX-S	2.50"	2.875"	1.50"	8.00"	1.50"	1.01"	2.25"	3.25"	2.25"	0.81"	2.18"	SAE 8
BU30XX-S	3.00"	3.50"	1.50"	8.00"	1.50"	1.01"	2.25"	3.75"	2.25"	0.81"	2.18"	SAE 8
BU35XX-S	3.50"	4.00"	1.75"	10.00"	2.00"	1.26"	4.00"	4.25"	2.25"	0.81"	2.18"	SAE 8
BU40XX-S	4.00"	4.50"	2.00"	10.00"	2.25"	1.51"	3.75"	4.75"	2.50"	0.81"	2.18"	SAE 8
BU50XX-S	5.00"	5.50"	2.50"	12.00"	3.00"	**1.76"	3.50"	5.75"	3.25"	1.25"	2.75"	SAE 12

** PIN SIZE WITH INSERT, 2" WHEN REMOVED
MAXIMUM RETRACTED WORKING PRESSURE : 3000 psi

MAXIMUM EXTENDED WORKING PRESSURE : SEE TABLE
RETRACTED AND STROKE TOLERANCE ± 1/8"



WELDED BUSHING

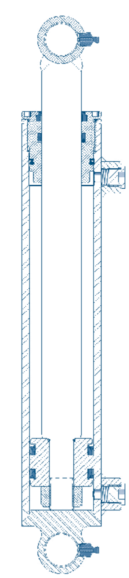
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
BU1504-S	1.5" X 4"	12"	16"				5300	3000	8
BU1506-S	1.5" X 6"	14"	20"				5300	3000	9
BU1508-S	1.5" X 8"	16"	24"				5300	3000	10
BU1510-S	1.5" X 10"	18"	28"				5300	3000	12
BU1512-S	1.5" X 12"	20"	32"	1"	3/4"	SAE 4	5300	3000	13
BU1514-S	1.5" X 14"	22"	36"				5300	3000	14
BU1516-S	1.5" X 16"	24"	40"				5300	3000	15
BU1518-S	1.5" X 18"	26"	44"				4800	2700	17
BU1520-S	1.5" X 20"	28"	48"				4000	2300	18
BU1524-S	1.5" X 24"	32"	56"				3000	1700	20
BU2004-S	2" X 4"	12"	16"				9400	3000	12
BU2006-S	2" X 6"	14"	20"				9400	3000	13
BU2008-S	2" X 8"	16"	24"				9400	3000	15
BU2010-S	2" X 10"	18"	28"				9400	3000	17
BU2012-S	2" X 12"	20"	32"				9400	3000	19
BU2014-S	2" X 14"	22"	36"				9400	3000	20
BU2016-S	2" X 16"	24"	40"				9400	3000	22
BU2018-S	2" X 18"	26"	44"	1-1/4"	1"	SAE 6	9400	3000	24
BU2020-S	2" X 20"	28"	48"				9400	3000	25
BU2024-S	2" X 24"	32"	56"				7300	2300	29
BU2028-S	2" X 28"	36"	64"				5600	1700	32
BU2030-S	2" X 30"	38"	68"				4900	1500	34
BU2032-S	2" X 32"	40"	72"				4400	1400	35
BU2036-S	2" X 36"	44"	80"				3500	1100	39
BU2040-S	2" X 40"	48"	88"				2900	900	42
BU2048-S	2" X 48"	56"	104"				2100	600	49

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

WELDED BUSHING

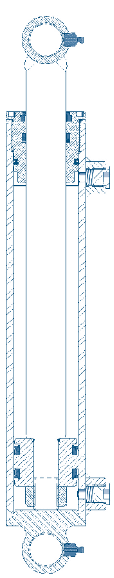
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
BU2504-S	2.5” X 4”	12”	16”				14700	3000	16
BU2506-S	2.5” X 6”	14”	20”				14700	3000	18
BU2508-S	2.5” X 8”	16”	24”				14700	3000	20
BU2510-S	2.5” X 10”	18”	28”				14700	3000	22
BU2512-S	2.5” X 12”	20”	32”				14700	3000	24
BU2514-S	2.5” X 14”	22”	36”				14700	3000	27
BU2516-S	2.5” X 16”	24”	40”				14700	3000	29
BU2518-S	2.5” X 18”	26”	44”	1-1/2”	1”	SAE 8	14700	3000	31
BU2520-S	2.5” X 20”	28”	48”				14700	3000	33
BU2524-S	2.5” X 24”	32”	56”				14700	3000	38
BU2528-S	2.5” X 28”	36”	64”				11600	2300	42
BU2530-S	2.5” X 30”	38”	68”				10300	2100	45
BU2532-S	2.5” X 32”	40”	72”				9200	1800	47
BU2536-S	2.5” X 36”	44”	80”				7400	1500	51
BU2540-S	2.5” X 40”	48”	88”				6100	1200	56
BU2548-S	2.5” X 48”	56”	104”				4400	800	65
BU3004-S	3” X 4”	12”	16”				21200	3000	19
BU3006-S	3” X 6”	14”	20”				21200	3000	22
BU3008-S	3” X 8”	16”	24”				21200	3000	24
BU3010-S	3” X 10”	18”	28”				21200	3000	27
BU3012-S	3” X 12”	20”	32”				21200	3000	29
BU3014-S	3” X 14”	22”	36”				21200	3000	32
BU3016-S	3” X 16”	24”	40”				21200	3000	34
BU3018-S	3” X 18”	26”	44”	1-1/2”	1”	SAE 8	21200	3000	36
BU3020-S	3” X 20”	28”	48”				20700	2900	39
BU3024-S	3” X 24”	32”	56”				15200	2100	44
BU3028-S	3” X 28”	36”	64”				11600	1600	49
BU3030-S	3” X 30”	38”	68”				10300	1400	51
BU3032-S	3” X 32”	40”	72”				9200	1300	53
BU3036-S	3” X 36”	44”	80”				7400	1000	58
BU3040-S	3” X 40”	48”	88”				6100	800	63
BU3048-S	3” X 48”	56”	104”				4400	600	73
BU3504-S	3.5” X 4”	14”	18”				28800	3000	27
BU3506-S	3.5” X 6”	16”	22”				28800	3000	30
BU3508-S	3.5” X 8”	18”	26”				28800	3000	33
BU3510-S	3.5” X 10”	20”	30”				28800	3000	36
BU3512-S	3.5” X 12”	22”	34”				28800	3000	39
BU3514-S	3.5” X 14”	24”	38”				28800	3000	42
BU3516-S	3.5” X 16”	26”	42”				28800	3000	45
BU3518-S	3.5” X 18”	28”	46”	1-3/4”	1-1/4”	SAE 8	28800	3000	48
BU3520-S	3.5” X 20”	30”	50”				28800	3000	51
BU3524-S	3.5” X 24”	34”	58”				26200	2700	57
BU3528-S	3.5” X 28”	38”	66”				20200	2100	63
BU3530-S	3.5” X 30”	40”	70”				18000	1800	66
BU3532-S	3.5” X 32”	42”	74”				16100	1600	69
BU3536-S	3.5” X 36”	46”	82”				13100	1300	75
BU3540-S	3.5” X 40”	50”	90”				10900	1100	81
BU3548-S	3.5” X 48”	58”	106”				7800	800	94

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.



UTILITY WELDED CYLINDERS - BUSHING TYPE

Hydro Custom

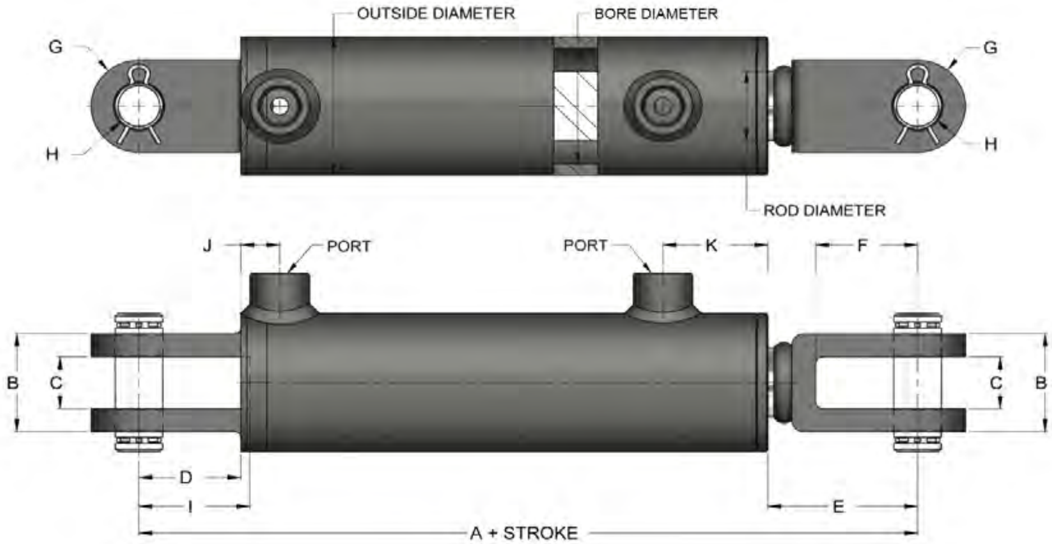


WELDED BUSHING

PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
BU4004-S	4” X 4”	14”	18”				37600	3000	34
BU4006-S	4” X 6”	16”	22”				37600	3000	38
BU4008-S	4” X 8”	18”	26”				37600	3000	41
BU4010-S	4” X 10”	20”	30”				37600	3000	45
BU4012-S	4” X 12”	22”	34”				37600	3000	49
BU4014-S	4” X 14”	24”	38”				37600	3000	52
BU4016-S	4” X 16”	26”	42”				37600	3000	56
BU4018-S	4” X 18”	28”	46”	2”	1-1/2”	SAE 8	37600	3000	59
BU4020-S	4” X 20”	30”	50”				37600	3000	63
BU4024-S	4” X 24”	34”	58”				37600	3000	70
BU4028-S	4” X 28”	38”	66”				34600	2700	78
BU4030-S	4” X 30”	40”	70”				30700	2400	81
BU4032-S	4” X 32”	42”	74”				27500	2100	85
BU4036-S	4” X 36”	46”	82”				22400	1700	92
BU4040-S	4” X 40”	50”	90”				18600	1400	99
BU4048-S	4” X 48”	58”	106”				13400	1000	114
BU5004-S	5” X 4”	16”	20”				58900	3000	64
BU5006-S	5” X 6”	18”	24”				58900	3000	69
BU5008-S	5” X 8”	20”	28”				58900	3000	75
BU5010-S	5” X 10”	22”	32”				58900	3000	80
BU5012-S	5” X 12”	24”	36”				58900	3000	85
BU5014-S	5” X 14”	26”	40”				58900	3000	90
BU5016-S	5” X 16”	28”	44”				58900	3000	96
BU5018-S	5” X 18”	30”	48”	2-1/2”	1-3/4”	SAE 12	58900	3000	101
BU5020-S	5” X 20”	32”	52”				58900	3000	106
BU5024-S	5” X 24”	36”	60”				58900	3000	116
BU5028-S	5” X 28”	40”	68”				58900	3000	126
BU5030-S	5” X 30”	42”	72”				58900	3000	131
BU5032-S	5” X 32”	44”	76”				58900	3000	136
BU5036-S	5” X 36”	48”	84”				52100	2600	147
BU5040-S	5” X 40”	52”	92”				43400	2200	157
BU5048-S	5” X 48”	60”	108”				31500	1600	177

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

HC Hydro Custom



PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD DIAMETER	*A	B	C	D	*E	F	G	H	I	J	K	PORTS*
CL15-XX-S	1.50"	1.875"	1.00"	8.25"	1.62"	0.87"	1.37"	2.25"	1.37"	1.50"	0.76"	-	0.93"	1.87"	SAE 4
CL20-XX-S	2.00"	2.375"	1.25"	10.25"	2.12"	1.12"	2.12"	3.12"	2.12"	2.00"	1.01"	-	1.00"	2.06"	SAE6
CL25-XX-S	2.50"	2.875"	1.50"	10.25"	2.12"	1.12"	2.12"	3.12"	2.12"	2.00"	1.01"	-	0.81"	2.18"	SAE 8
CL30-XX-S	3.00"	3.50"	1.50"	10.25"	2.12"	1.12"	2.12"	3.12"	2.12"	2.00"	1.01"	-	0.81"	2.18"	SAE 8
CL35-XX-S	3.50"	4.00"	1.75"	10.25"	2.37"	1.12"	2.00"	3.12"	2.12"	2.00"	1.01"	2.12"	0.93"	2.18"	SAE 8
CL40-XX-S	4.00"	4.50"	2.00"	10.25"	2.37"	1.12"	1.75"	3.12"	2.00"	2.00"	1.01"	2.00"	1.06"	2.18"	SAE 8
CL50-XX-S	5.00"	5.50"	2.50"	13.00"	3.12"	1.62"	2.25"	3.62"	2.25"	3.00"	1.51"	-	1.37"	2.75"	SAE 12

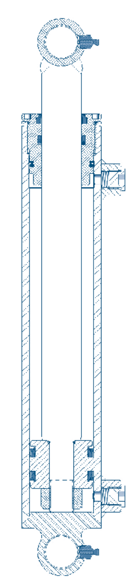
1. FOR 8" STROKE : A = 12.25" (2" TO 4" BORE)
2. FOR 8" STROKE : E = 5.12" (2" TO 4" BORE)
* NPT PORTS ARE ALSO AVAILABLE FROM 1.5" TO 4" BORE CYLINDERS

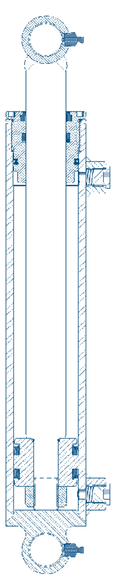
MAXIMUM RETRACTED WORKING PRESSURE : 3000 psi
MAXIMUM EXTENDED WORKING PRESSURE : SEE TABLE
RETRACTED AND STROKE TOLERANCE ± 1/8"

WELDED FEMALE CLEVIS TYPE

PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
CL1504-S	1.5" X 4"	12-1/4"	16-1/4"				5300	3000	8
CL1506-S	1.5" X 6"	14-1/4"	20-1/4"				5300	3000	9
CL1508-S	1.5" X 8"	16-1/4"	24-1/4"				5300	3000	11
CL1510-S	1.5" X 10"	18-1/4"	28-1/4"				5300	3000	12
CL1512-S	1.5" X 12"	20-1/4"	32-1/4"	1"	3/4"	SAE 4	5300	3000	13
CL1514-S	1.5" X 14"	22-1/4"	36-1/4"				5300	3000	14
CL1516-S	1.5" X 16"	24-1/4"	40-1/4"				5300	3000	15
CL1518-S	1.5" X 18"	26-1/4"	44-1/4"				4800	2700	17
CL1520-S	1.5" X 20"	28-1/4"	48-1/4"				4000	2200	18
CL1524-S	1.5" X 24"	32-1/4"	56-1/4"				2900	1600	20
CL2004-S	2" X 4"	14-1/4"	18-1/4"				9400	3000	14
CL2006-S	2" X 6"	16-1/4"	22-1/4"				9400	3000	16
CL2008-S	2" X 8"	20-1/4"	28-1/4"				9400	3000	18
CL2010-S	2" X 10"	20-1/4"	30-1/4"				9400	3000	19
CL2012-S	2" X 12"	22-1/4"	34-1/4"				9400	3000	21
CL2014-S	2" X 14"	24-1/4"	38-1/4"				9400	3000	23
CL2016-S	2" X 16"	26-1/4"	42-1/4"				9400	3000	25
CL2018-S	2" X 18"	28-1/4"	46-1/4"				9400	3000	26
CL2020-S	2" X 20"	30-1/4"	50-1/4"	1-1/4"	1"	SAE 6	9100	2900	28
CL2024-S	2" X 24"	34-1/4"	58-1/4"				6700	2100	31
CL2028-S	2" X 28"	38-1/4"	66-1/4"				5200	1600	35
CL2030-S	2" X 30"	40-1/4"	70-1/4"				4600	1400	36
CL2032-S	2" X 32"	42-1/4"	74-1/4"				4100	1300	38
CL2034-S	2" X 34"	44-1/4"	78-1/4"				3700	1100	40
CL2036-S	2" X 36"	46-1/4"	82-1/4"				3400	1000	42
CL2040-S	2" X 40"	50-1/4"	90-1/4"				2800	800	45
CL2048-S	2" X 48"	58-1/4"	106-1/4"				2000	600	52

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.



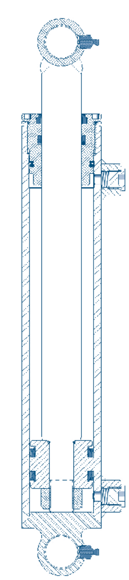


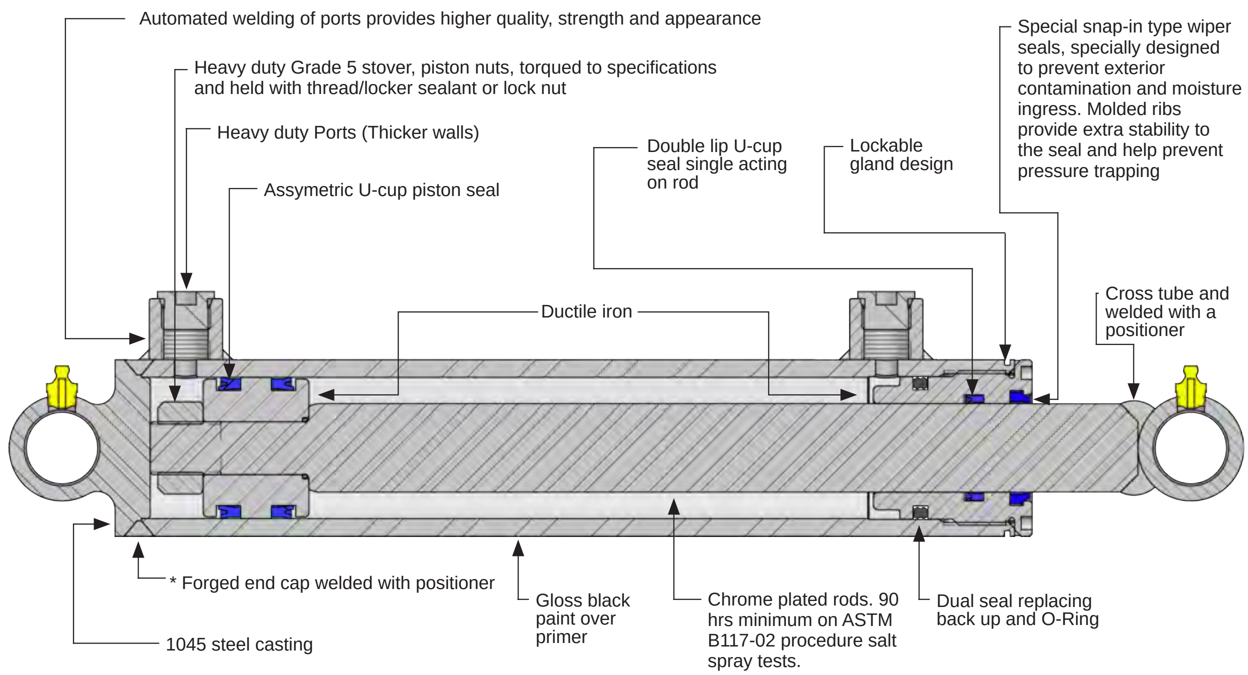
WELDED FEMALE CLEVIS TYPE									
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
CL2504-S	2.5” X 4”	14-1/4”	18-1/4”				14700	3000	18
CL2506-S	2.5” X 6”	16-1/4”	22-1/4”				14700	3000	20
CL2508-S	2.5” X 8”	20-1/4”	28-1/4”				14700	3000	24
CL2510-S	2.5” X 10”	20-1/4”	30-1/4”				14700	3000	25
CL2512-S	2.5” X 12”	22-1/4”	34-1/4”				14700	3000	27
CL2514-S	2.5” X 14”	24-1/4”	38-1/4”				14700	3000	29
CL2516-S	2.5” X 16”	26-1/4”	42-1/4”				14700	3000	32
CL2518-S	2.5” X 18”	28-1/4”	46-1/4”				14700	3000	34
CL2520-S	2.5” X 20”	30-1/4”	50-1/4”	1-1/2”	1”	SAE 8	14700	3000	36
CL2524-S	2.5” X 24”	34-1/4”	58-1/4”				14000	2800	40
CL2528-S	2.5” X 28”	38-1/4”	66-1/4”				10800	2200	45
CL2530-S	2.5” X 30”	40-1/4”	70-1/4”				9600	1900	47
CL2532-S	2.5” X 32”	42-1/4”	74-1/4”				8600	1700	49
CL2534-S	2.5” X 34”	44-1/4”	78-1/4”				7700	1500	52
CL2536-S	2.5” X 36”	46-1/4”	82-1/4”				7000	1400	54
CL2540-S	2.5” X 40”	50-1/4”	90-1/4”				5800	1100	58
CL2548-S	2.5” X 48”	58-1/4”	106-1/4”				4200	800	67
CL3004-S	3” X 4”	14-1/4”	18-1/4”				21200	3000	22
CL3006-S	3” X 6”	16-1/4”	22-1/4”				21200	3000	24
CL3008-S	3” X 8”	20-1/4”	28-1/4”				21200	3000	27
CL3010-S	3” X 10”	20-1/4”	30-1/4”				21200	3000	29
CL3012-S	3” X 12”	22-1/4”	34-1/4”				21200	3000	31
CL3014-S	3” X 14”	24-1/4”	38-1/4”				21200	3000	34
CL3016-S	3” X 16”	26-1/4”	42-1/4”				21200	3000	36
CL3018-S	3” X 18”	28-1/4”	46-1/4”	1-1/2”	1”	SAE 8	21200	3000	39
CL3020-S	3” X 20”	30-1/4”	50-1/4”				18800	2600	41
CL3024-S	3” X 24”	34-1/4”	58-1/4”				14000	1900	46
CL3028-S	3” X 28”	38-1/4”	66-1/4”				10800	1500	51
CL3030-S	3” X 30”	40-1/4”	70-1/4”				9600	1300	53
CL3032-S	3” X 32”	42-1/4”	74-1/4”				8600	1200	56
CL3034-S	3” X 34”	44-1/4”	78-1/4”				7700	1100	58
CL3036-S	3” X 36”	46-1/4”	82-1/4”				7000	900	61
CL3504-S	3.5” X 4”	14-1/4”	18-1/4”				28800	3000	27
CL3506-S	3.5” X 6”	16-1/4”	22-1/4”				28800	3000	30
CL3508-S	3.5” X 8”	20-1/4”	28-1/4”				28800	3000	35
CL3510-S	3.5” X 10”	20-1/4”	30-1/4”				28800	3000	36
CL3512-S	3.5” X 12”	22-1/4”	34-1/4”				28800	3000	39
CL3514-S	3.5” X 14”	24-1/4”	38-1/4”				28800	3000	42
CL3516-S	3.5” X 16”	26-1/4”	42-1/4”				28800	3000	46
CL3518-S	3.5” X 18”	28-1/4”	46-1/4”	1-3/4”	1”	SAE 8	28800	3000	49
CL3520-S	3.5” X 20”	30-1/4”	50-1/4”				28800	3000	52
CL3524-S	3.5” X 24”	34-1/4”	58-1/4”				26000	2700	58
CL3528-S	3.5” X 28”	38-1/4”	66-1/4”				20100	2000	64
CL3530-S	3.5” X 30”	40-1/4”	70-1/4”				17900	1800	67
CL3532-S	3.5” X 32”	42-1/4”	74-1/4”				16000	1600	70
CL3534-S	3.5” X 34”	44-1/4”	78-1/4”				14400	1500	73
CL3536-S	3.5” X 36”	46-1/4”	82-1/4”				13000	1300	76

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

WELDED FEMALE CLEVIS TYPE

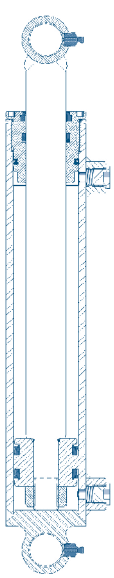
PART NUMBER	BORE & STROKE	DIMENSIONS RETRACTED	DIMENSIONS EXTENDED	ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (lbs)	PRESSURE (psi)	WEIGHT (lbs)
CL4004-S	4” X 4”	14-1/4”	18-1/4”				37600	3000	33
CL4006-S	4” X 6”	16-1/4”	22-1/4”				37600	3000	37
CL4008-S	4” X 8”	20-1/4”	28-1/4”				37600	3000	42
CL4010-S	4” X 10”	20-1/4”	30-1/4”				37600	3000	44
CL4012-S	4” X 12”	22-1/4”	34-1/4”				37600	3000	48
CL4014-S	4” X 14”	24-1/4”	38-1/4”				37600	3000	52
CL4016-S	4” X 16”	26-1/4”	42-1/4”				37600	3000	55
CL4018-S	4” X 18”	28-1/4”	46-1/4”	2”	1”	SAE 8	37600	3000	59
CL4020-S	4” X 20”	30-1/4”	50-1/4”				37600	3000	63
CL4024-S	4” X 24”	34-1/4”	58-1/4”				37600	3000	70
CL4028-S	4” X 28”	38-1/4”	66-1/4”				34300	2700	77
CL4030-S	4” X 30”	40-1/4”	70-1/4”				30500	2400	81
CL4032-S	4” X 32”	42-1/4”	74-1/4”				27300	2100	85
CL4034-S	4” X 34”	44-1/4”	78-1/4”				24600	1900	89
CL4036-S	4” X 36”	46-1/4”	82-1/4”				22200	1700	92
CL5004-S	5” X 4”	17”	21”				58900	3000	64
CL5006-S	5” X 6”	19”	25”				58900	3000	69
CL5008-S	5” X 8”	21”	29”				58900	3000	74
CL5010-S	5” X 10”	23”	33”				58900	3000	79
CL5012-S	5” X 12”	25”	37”				58900	3000	84
CL5014-S	5” X 14”	27”	41”				58900	3000	89
CL5016-S	5” X 16”	29”	45”				58900	3000	95
CL5018-S	5” X 18”	31”	49”				58900	3000	100
CL5020-S	5” X 20”	33”	53”	2-1/2”	1-1/2”	SAE 12	58900	3000	105
CL5024-S	5” X 24”	37”	61”				58900	3000	115
CL5028-S	5” X 28”	41”	69”				58900	3000	125
CL5030-S	5” X 30”	43”	73”				58900	3000	130
CL5032-S	5” X 32”	45”	77”				58900	3000	135
CL5034-S	5” X 34”	47”	81”				56100	2800	141
CL5036-S	5” X 36”	49”	85”				50900	2500	146
CL5040-S	5” X 40”	53”	93”				42500	2100	156
CL5048-S	5” X 48”	61”	109”				30900	1500	176



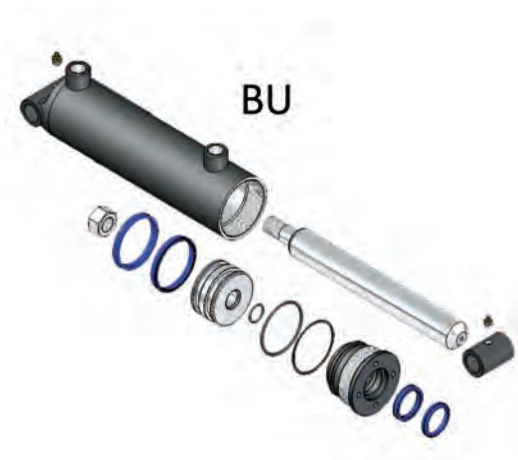


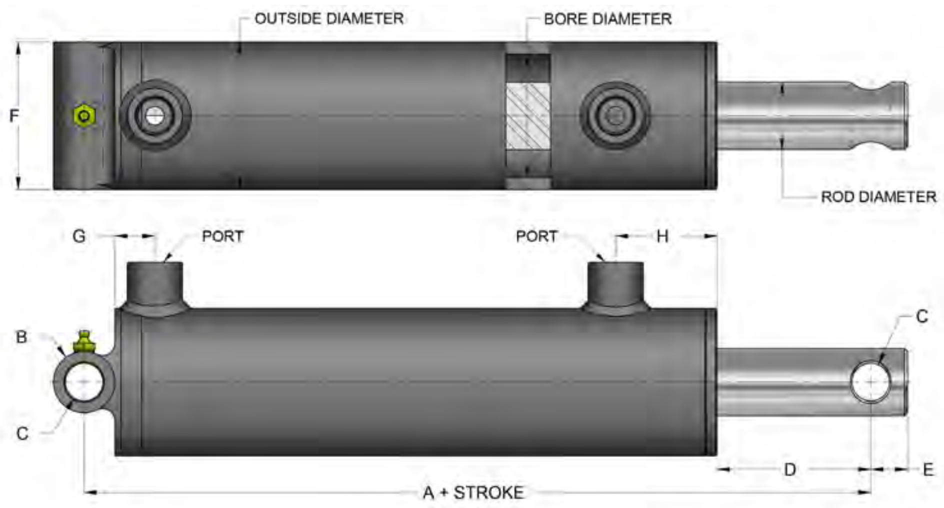
* Except 5" models

SEAL TEMPERATURE RANGE : -30°C / +100°C (-22°F / +212°F)
SEAL MAXIMUM SPEED : 3 FT / SEC



ALL SEALS ARE TOP GRADE/FIRST QUALITY NORTH AMERICAN MADE
ALL COMPONENTS ARE CNC MACHINED FOR HIGHER ACCURACY AND CONFORMITY
QUALITY CONTROLLED IN CHINA BY QUALIFIED CANADIAN TECHNICIANS
100% TESTED. ALL CYLINDERS ARE SUBMITTED TO STATIC AND DYNAMIC PRESSURE TESTS
TO RECOMMENDED SPECIFICATIONS





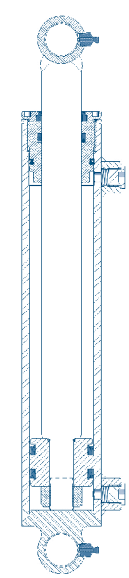
PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD DIAMETER	A	B	C	D	E	F	G	H	PORTS*
WT3-15XX-S	1.50”	1.875”	1.00”	7.00”	1.25”	0.64”	2.43”	0.62”	2.00”	0.81”	1.87”	SAE 6
WT3-20XX-S	2.00”	2.375”	1.25”	8.00”	1.25”	0.76”	3.37”	0.75”	2.50”	0.81”	1.87”	SAE 8
WT3-25XX-S	2.50”	2.875”	1.37”	8.00”	1.25”	0.76”	3.12”	0.75”	3.00”	0.81”	2.06”	SAE 8
WT3-30XX-S	3.00”	3.50”	1.50”	8.00”	1.50”	1.01”	2.56”	1.00”	3.50”	0.81”	2.18”	SAE 8
WT3-35XX-S	3.50”	4.00”	1.75”	8.00”	1.50”	1.01”	2.43”	1.00”	4.00”	0.81”	2.18”	SAE 8
WT3-40XX-S	4.00”	4.50”	2.00”	9.00”	2.00”	1.26”	2.43”	1.25”	4.50”	0.81”	2.18”	SAE 8

1. FOR 8" STROKE : A = 12.25" (2" TO 4" BORE
2. FOR 8" STROKE : E = 5.12" (2" TO 4" BORE)
MAXIMUM RETRACTED WORKING PRESSURE : 3000 PSI

*NPT PORTS ARE ALSO AVAIBLE
MAXIMUM RETRACTED WORKING PRESSURE : 3000 psi
MAXIMUM EXTENDED WORKING PRESSURE : TABLE
RETRACTED AND STROKE TOLERANCE ± 1/8"

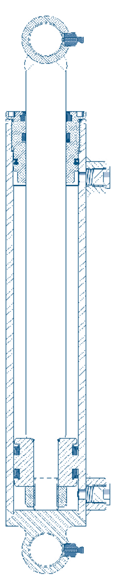
UTILITY CYLINDER THROUGH HOLE TYPE

PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
WT3-1504-S	1.5” X 4”	11”	15”				5300	3000	7
WT3-1506-S	1.5” X 6”	13”	19”				5300	3000	8
WT3-1508-S	1.5” X 8”	15”	23”				5300	3000	9
WT3-1510-S	1.5” X 10”	17”	27”	1”	5/8”	SAE 6	5300	3000	11
WT3-1512-S	1.5” X 12”	19”	31”				5300	3000	12
WT3-1514-S	1.5” X 14”	21”	35”				5300	3000	13
WT3-1516-S	1.5” X 16”	23”	39”				5300	3000	14
WT3-2004-S	2” X 4”	12”	16”				9400	3000	11
WT3-2006-S	2” X 6”	14”	20”				9400	3000	12
WT3-2008-S	2” X 8”	16”	24”				9400	3000	14
WT3-2010-S	2” X 10”	18”	28”				9400	3000	16
WT3-2012-S	2” X 12”	20”	32”				9400	3000	17
WT3-2014-S	2” X 14”	22”	36”				9400	3000	19
WT3-2016-S	2” X 16”	24”	40”				9400	3000	21
WT3-2018-S	2” X 18”	26”	44”				9400	3000	22
WT3-2020-S	2” X 20”	28”	48”				9400	3000	24
WT3-2024-S	2” X 24”	32”	56”	1-1/4”	3/4”	SAE 8	7300	2300	27
WT3-2028-S	2” X 28”	36”	64”				5600	1700	31
WT3-2030-S	2” X 30”	38”	68”				4900	1500	33
WT3-2032-S	2” X 32”	40”	72”				4400	1400	34
WT3-2036-S	2” X 36”	44”	80”				3500	1100	38
WT3-2040-S	2” X 40”	48”	88”				2900	900	41
WT3-2042-S	2” X 42”	50”	92”				2700	800	43
WT3-2048-S	2” X 48”	56”	104”				2100	600	48
WT3-2060-S	2” X 60”	68”	128”				1400	400	58
WT3-2072-S	2” X 72”	80”	152”				900	300	68



* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

UTILITY CYLINDERS THROUGH HOLE TYPE • 3000 PSI WP



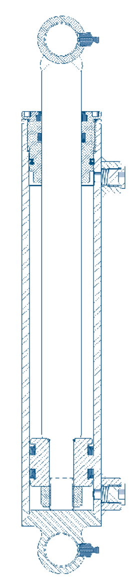
PART NUMBER	BORE & STROKE	DIMENSIONS RETRACTED	DIMENSIONS EXTENDED	ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
WELDED THROUGH HOLE TYPE									
WT3-2504-S	2.5" X 4"	12"	16"	1-3/8"	3/4"	SAE 8	14700	3000	14
WT3-2506-S	2.5" X 6"	14"	20"				14700	3000	16
WT3-2508-S	2.5" X 8"	16"	24"				14700	3000	18
WT3-2510-S	2.5" X 10"	18"	28"				14700	3000	20
WT3-2512-S	2.5" X 12"	20"	32"				14700	3000	22
WT3-2514-S	2.5" X 14"	22"	36"				14700	3000	24
WT3-2516-S	2.5" X 16"	24"	40"				14700	3000	26
WT3-2518-S	2.5" X 18"	26"	44"				14700	3000	28
WT3-2520-S	2.5" X 20"	28"	48"				14600	2900	30
WT3-2524-S	2.5" X 24"	32"	56"				10700	2100	35
WT3-2528-S	2.5" X 28"	36"	64"				8200	1600	39
WT3-2530-S	2.5" X 30"	38"	68"				7200	1400	41
WT3-2532-S	2.5" X 32"	40"	72"				6500	1300	43
WT3-2536-S	2.5" X 36"	44"	80"				5200	1000	47
WT3-2540-S	2.5" X 40"	48"	88"				4300	800	51
WT3-2542-S	2.5" X 42"	50"	92"				3900	800	53
WT3-2548-S	2.5" X 48"	56"	104"				3100	600	60
WT3-2560-S	2.5" X 60"	68"	128"				2000	400	72
WT3-3006-S	3" X 6"	14"	20"	1-1/2"	1"	SAE 8	21200	3000	21
WT3-3008-S	3" X 8"	16"	24"				21200	3000	24
WT3-3010-S	3" X 10"	18"	28"				21200	3000	26
WT3-3012-S	3" X 12"	20"	32"				21200	3000	28
WT3-3014-S	3" X 14"	22"	36"				21200	3000	31
WT3-3016-S	3" X 16"	24"	40"				21200	3000	33
WT3-3018-S	3" X 18"	26"	44"				21200	3000	36
WT3-3020-S	3" X 20"	28"	48"				20700	2900	38
WT3-3024-S	3" X 24"	32"	56"				15200	2100	43
WT3-3028-S	3" X 28"	36"	64"				11600	1600	48
WT3-3030-S	3" X 30"	38"	68"				10300	1400	51
WT3-3032-S	3" X 32"	40"	72"				9200	1300	53
WT3-3036-S	3" X 36"	44"	80"				7400	1000	58
WT3-3040-S	3" X 40"	48"	88"				6100	800	63
WT3-3042-S	3" X 42"	50"	92"				5600	700	65
WT3-3048-S	3" X 48"	56"	104"				4400	600	73
WT3-3060-S	3" X 60"	68"	128"				2900	400	87

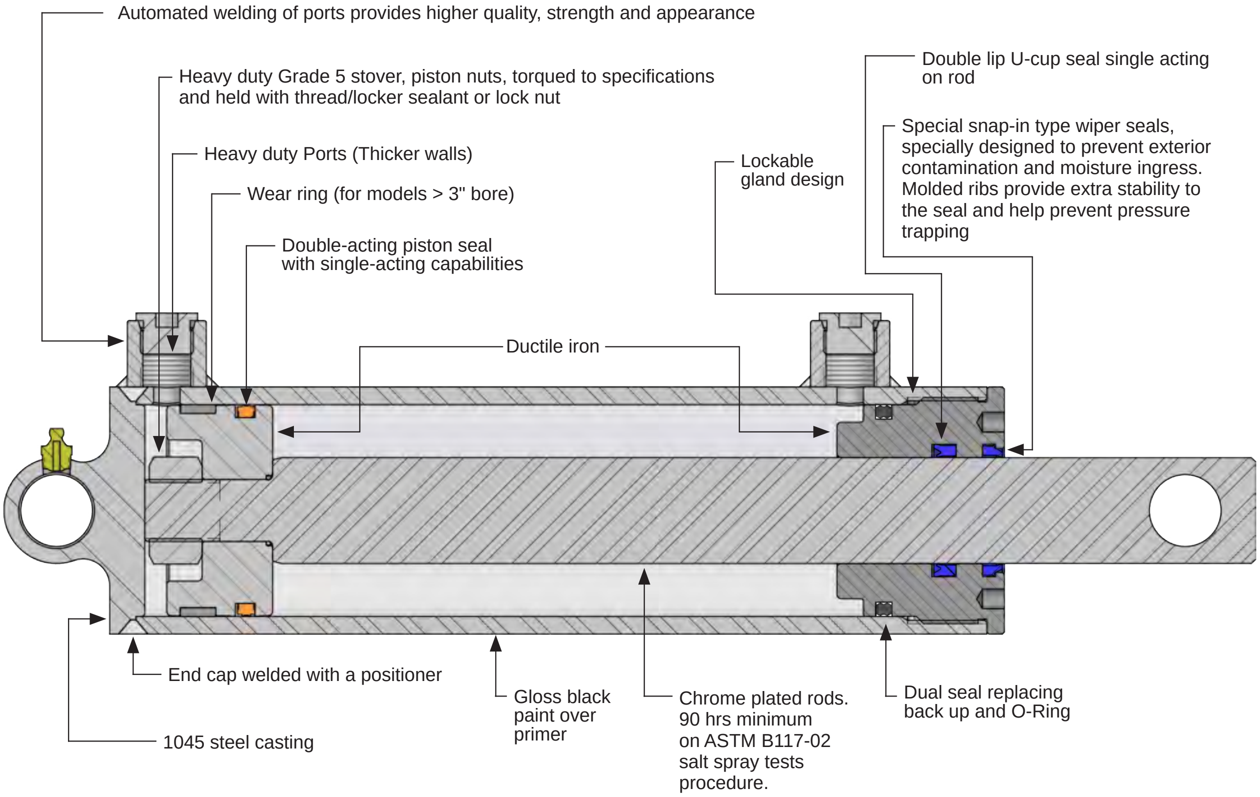
* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

WELDED THROUGH HOLE TYPE

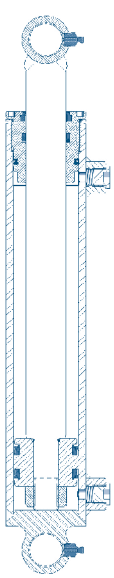
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
WT3-3504-S	3.5" X 4"	12"	16"				28800	3000	24
WT3-3506-S	3.5" X 6"	14"	20"				28800	3000	27
WT3-3508-S	3.5" X 8"	16"	24"				28800	3000	30
WT3-3510-S	3.5" X 10"	18"	28"				28800	3000	33
WT3-3512-S	3.5" X 12"	20"	32"				28800	3000	36
WT3-3514-S	3.5" X 14"	22"	36"				28800	3000	39
WT3-3516-S	3.5" X 16"	24"	40"				28800	3000	42
WT3-3518-S	3.5" X 18"	26"	44"				28800	3000	45
WT3-3520-S	3.5" X 20"	28"	48"	1-3/4"	1"	SAE 8	28800	3000	48
WT3-3524-S	3.5" X 24"	32"	56"				28100	2900	54
WT3-3528-S	3.5" X 28"	36"	64"				21500	2200	60
WT3-3530-S	3.5" X 30"	38"	68"				19100	1900	63
WT3-3532-S	3.5" X 32"	40"	72"				17000	1700	66
WT3-3536-S	3.5" X 36"	44"	80"				13800	1400	72
WT3-3540-S	3.5" X 40"	48"	88"				11400	1100	79
WT3-3542-S	3.5" X 42"	50"	92"				10400	1000	82
WT3-3548-S	3.5" X 48"	56"	104"				8100	800	91
WT3-4008-S	4" X 8"	17"	25"				37700	3000	40
WT3-4010-S	4" X 10"	19"	29"				37700	3000	44
WT3-4012-S	4" X 12"	21"	33"				37700	3000	47
WT3-4014-S	4" X 14"	23"	37"				37700	3000	51
WT3-4016-S	4" X 16"	25"	41"				37700	3000	55
WT3-4018-S	4" X 18"	27"	45"				37700	3000	58
WT3-4020-S	4" X 20"	29"	49"				37700	3000	62
WT3-4024-S	4" X 24"	33"	57"	2"	1-1/4"	SAE 8	37700	3000	70
WT3-4028-S	4" X 28"	37"	65"				35600	2800	77
WT3-4030-S	4" X 30"	39"	69"				31600	2500	81
WT3-4032-S	4" X 32"	41"	73"				28300	2200	84
WT3-4036-S	4" X 36"	45"	81"				22900	1800	91
WT3-4040-S	4" X 40"	49"	89"				19000	1500	99
WT3-4048-S	4" X 48"	57"	105"				13600	1000	114
WT3-4060-S	4" X 60"	69"	129"				9000	700	136

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.





SEAL TEMPERATURE RANGE : -30°C / +100°C (-22°F / +212°F)
SEAL MAXIMUM SPEED : 3 FT / SEC

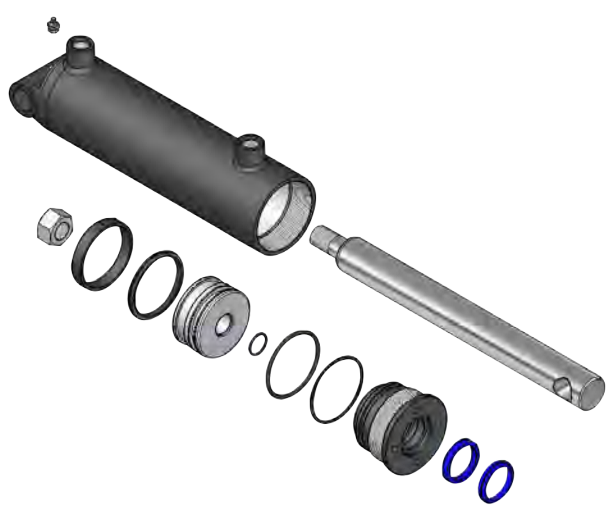


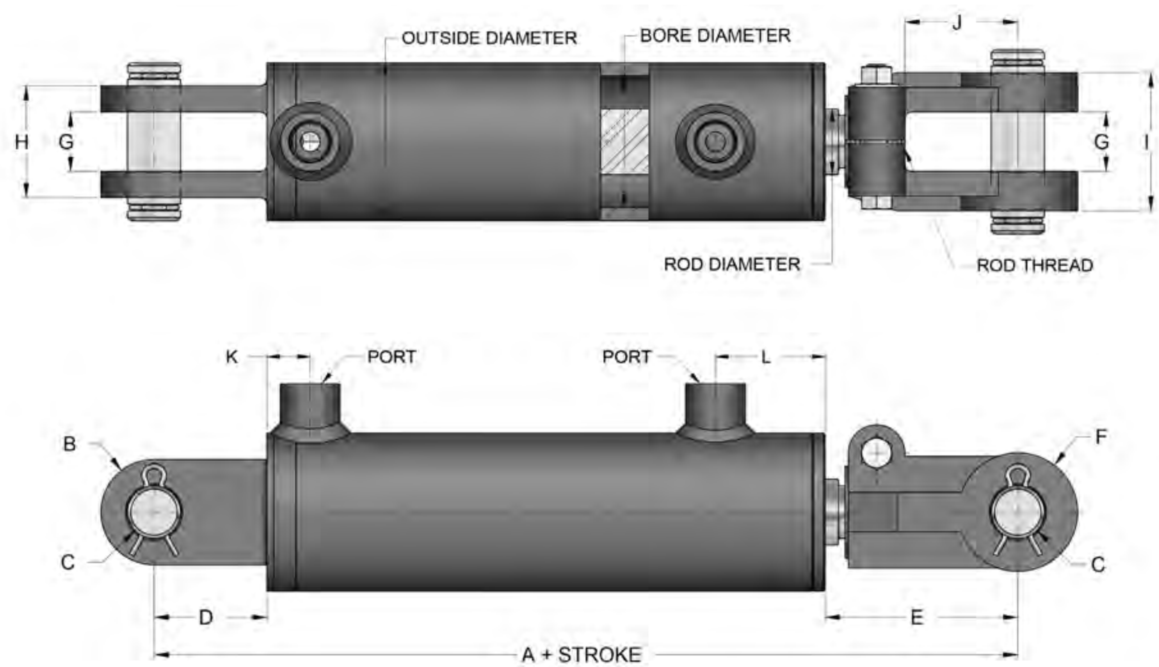
ALL SEALS ARE TOP GRADE/FIRST QUALITY NORTH AMERICAN MADE

ALL COMPONENTS ARE CNC MACHINED FOR HIGHER ACCURACY AND CONFORMITY

QUALITY CONTROLLED IN CHINA BY QUALIFIED CANADIAN TECHNICIANS

100% TESTED. ALL CYLINDERS ARE SUBMITTED TO STATIC AND DYNAMIC PRESSURE TESTS TO RECOMMENDED SPECIFICATIONS

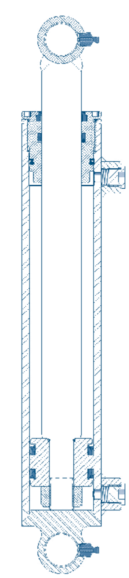




PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD DIAMETER	ROD THREAD	*A	B	C	D	*E	F	G	H	I	J	K	L	PORT*
TCL15XX-S	1.50"	1.875"	1.00"	0.875-14 UNF	10.25"	1.50"	0.76"	1.62"	4.50"	1.62"	0.87"	2.44"	2.00"	1.62"	0.93"	1.87"	SAE 6
TCL20XX-S	2.00"	2.375"	1.12"	1.125-12 UNF	10.25"	2.00"	1.01"	2.00"	3.62"	2.00"	1.14"	2.44"	2.50"	2.12"	0.81"	2.06"	SAE 8
TCL25XX-S	2.50"	2.875"	1.25"	1.125-12 UNF	10.25"	2.00"	1.01"	2.00"	3.62"	2.00"	1.14"	2.72"	2.72"	2.12"	0.81"	2.06"	SAE 8
TCL30XX-S	3.00"	3.50"	1.50"	1.250-12 UNF	10.25"	2.00"	1.01"	2.00"	3.62"	2.00"	1.14"	2.72"	2.72"	2.12"	0.87"	2.18"	SAE 8
TCL35XX-S	3.50"	4.00"	1.75"	1.500-12 UNF	10.25"	2.00"	1.01"	2.00"	3.62"	2.00"	1.14"	2.72"	2.72"	2.12"	0.93"	2.18"	SAE 8
TCL40XX-S	4.00"	4.50"	2.00"	1.500-12 UNF	10.25"	2.00"	1.01"	2.12"	3.62"	2.00"	1.14"	2.72"	2.95"	2.12"	1.00"	2.18"	SAE 8

1. FOR 8.00" STROKE : A = 12.25"
2. FOR 8.00" STROKE : E = 6.50" (1.50" BORE) E = 5.62" (2.00" TO 4.00" BORE)

DIMENSIONS A AND E ARE FOR REFERENCES ONLY AS CLEVIS IS ADJUSTABLE
* NPT PORTS ARE ALSO AVAILABLE
MAXIMUM RETRACTED WORKING PRESSURE : 3000 PSI
MAXIMUM EXTENDED WORKING PRESSURE : SEE TABLE
RETRACTED AND STROKE TOLERANCE ± 1/8"

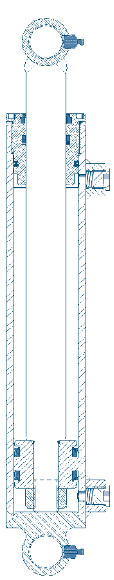


ADJUSTABLE FEMALE CLEVIS TYPE • 3000 PSI WP

HC Hydro Custom

ADJUSTABLE FEMALE CLEVIS TYPE

PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
TCL1504-S	1.5" X 4"	14-1/4"	18-1/4"				5300	3000	10
TCL1506-S	1.5" X 6"	16-1/4"	22-1/4"				5300	3000	11
TCL1508-S	1.5" X 8"	18-1/4"	26-1/4"				5300	3000	12
TCL1508-ASAE*	1.5" X 8"	20-1/4"	28-1/4"				5300	3000	13
TCL1510-S	1.5" X 10"	20-1/4"	30-1/4"				5300	3000	13
TCL1512-S	1.5" X 12"	22-1/4"	34-1/4"				5300	3000	15
TCL1514-S	1.5" X 14"	24-1/4"	38-1/4"				5300	3000	16
TCL1516-S	1.5" X 16"	26-1/4"	42-1/4"	1"	3/4"	SAE 6	5200	2900	17
TCL1518-S	1.5" X 18"	28-1/4"	46-1/4"				4400	2400	18
TCL1520-S	1.5" X 20"	30-1/4"	50-1/4"				3700	2100	20
TCL1524-S	1.5" X 24"	34-1/4"	58-1/4"				2700	1500	22
TCL1528-S	1.5" X 28"	38-1/4"	66-1/4"				2100	1200	25
TCL1530-S	1.5" X 30"	40-1/4"	70-1/4"				1900	1000	26
TCL1532-S	1.5" X 32"	42-1/4"	74-1/4"				1700	900	27
TCL1534-S	1.5" X 34"	44-1/4"	78-1/4"				1500	800	28
TCL1536-S	1.5" X 36"	46-1/4"	82-1/4"				1300	700	29
TCL2004-S	2" X 4"	14-1/4"	18-1/4"				9400	3000	16
TCL2006-S	2" X 6"	16-1/4"	22-1/4"				9400	3000	17
TCL2008-S	2" X 8"	18-1/4"	26-1/4"				9400	3000	19
TCL2008-ASAE*	2" X 8"	20-1/4"	28-1/4"				9400	3000	19
TCL2010-S	2" X 10"	20-1/4"	30-1/4"				9400	3000	20
TCL2012-S	2" X 12"	22-1/4"	34-1/4"				9400	3000	22
TCL2014-S	2" X 14"	24-1/4"	38-1/4"	1-1/8"	1"	SAE 8	9400	3000	23
TCL2016-S	2" X 16"	26-1/4"	42-1/4"				8400	2600	25
TCL2018-S	2" X 18"	28-1/4"	46-1/4"				7000	2200	27
TCL2020-S	2" X 20"	30-1/4"	50-1/4"				5900	1900	28
TCL2024-S	2" X 24"	34-1/4"	58-1/4"				4400	1400	31
TCL2030-S	2" X 30"	40-1/4"	70-1/4"				3000	900	36
TCL2036-S	2" X 36"	46-1/4"	82-1/4"				2200	700	41
TCL2504-S	2.5" X 4"	14-1/4"	18-1/4"				14700	3000	19
TCL2506-S	2.5" X 6"	16-1/4"	22-1/4"				14700	3000	20
TCL2508-S	2.5" X 8"	18-1/4"	26-1/4"				14700	3000	22
TCL2508-ASAE*	2.5" X 8"	20-1/4"	28-1/4"				14700	3000	23
TCL2510-S	2.5" X 10"	20-1/4"	30-1/4"				14700	3000	24
TCL2512-S	2.5" X 12"	22-1/4"	34-1/4"				14700	3000	26
TCL2514-S	2.5" X 14"	24-1/4"	38-1/4"	1-1/4"	1"	SAE 8	14700	3000	28
TCL2516-S	2.5" X 16"	26-1/4"	42-1/4"				12800	2600	30
TCL2518-S	2.5" X 18"	28-1/4"	46-1/4"				10700	2100	32
TCL2520-S	2.5" X 20"	30-1/4"	50-1/4"				9100	1800	34
TCL2524-S	2.5" X 24"	34-1/4"	58-1/4"				6700	1300	38
TCL2530-S	2.5" X 30"	40-1/4"	70-1/4"				4600	900	44
TCL2536-S	2.5" X 36"	46-1/4"	82-1/4"				3400	600	49



* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

* ASAE = AMERICAN SOCIETY OF AGRICULTURE ENGINEERS
DESIGNATES AN INDUSTRY MOUNTING STANDARD FOR 8" AND 16" STROKE CYLINDERS

ADJUSTABLE FEMALE CLEVIS TYPE

PART NUMBER	BORE & STROKE	DIMENSIONS RETRACTED	DIMENSIONS EXTENDED	ROD DIAMETER	PIN SIZE	PORTS*	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
TCL3004-S	3" X 4"	14-1/4"	18-1/4"	1-1/2"	1"	SAE 8	21200	3000	24
TCL3006-S	3" X 6"	16-1/4"	22-1/4"				21200	3000	26
TCL3008-S	3" X 8"	18-1/4"	26-1/4"				21200	3000	29
TCL3008-ASAE*	3" X 8"	20-1/4"	28-1/4"				21200	3000	29
TCL3010-S	3" X 10"	20-1/4"	30-1/4"				21200	3000	31
TCL3012-S	3" X 12"	22-1/4"	34-1/4"				21200	3000	33
TCL3014-S	3" X 14"	24-1/4"	38-1/4"				21200	3000	36
TCL3016-S	3" X 16"	26-1/4"	42-1/4"				21200	3000	38
TCL3016-ASAE*	3" X 16"	31-1/2"	47-1/2"				21200	3000	38
TCL3018-S	3" X 18"	28-1/4"	46-1/4"				21200	3000	41
TCL3020-S	3" X 20"	30-1/4"	50-1/4"				18800	2600	43
TCL3024-S	3" X 24"	34-1/4"	58-1/4"				14000	1900	48
TCL3030-S	3" X 30"	40-1/4"	70-1/4"				9600	1300	56
TCL3036-S	3" X 36"	46-1/4"	82-1/4"				7000	900	63
TCL3504-S	3.5" X 4"	14-1/4"	18-1/4"	1-3/4"	1"	SAE 8	28800	3000	29
TCL3506-S	3.5" X 6"	16-1/4"	22-1/4"				28800	3000	32
TCL3508-S	3.5" X 8"	18-1/4"	26-1/4"				28800	3000	35
TCL3508-ASAE*	3.5" X 8"	20-1/4"	28-1/4"				28800	3000	36
TCL3510-S	3.5" X 10"	20-1/4"	30-1/4"				28800	3000	38
TCL3512-S	3.5" X 12"	22-1/4"	34-1/4"				28800	3000	41
TCL3514-S	3.5" X 14"	24-1/4"	38-1/4"				28800	3000	44
TCL3516-S	3.5" X 16"	26-1/4"	42-1/4"				28800	3000	47
TCL3516-ASAE*	3.5" X 16"	31-1/2"	47-1/2"				28800	3000	47
TCL3518-S	3.5" X 18"	28-1/4"	46-1/4"				28800	3000	50
TCL3520-S	3.5" X 20"	30-1/4"	50-1/4"				28800	3000	53
TCL3524-S	3.5" X 24"	34-1/4"	58-1/4"				26000	2700	59
TCL3530-S	3.5" X 30"	40-1/4"	70-1/4"				17900	1800	68
TCL3536-S	3.5" X 36"	46-1/4"	82-1/4"				13000	1300	77
TCL4004-S	4" X 4"	14-1/4"	18-1/4"	2"	1"	SAE 8	37600	3000	35
TCL4006-S	4" X 6"	16-1/4"	22-1/4"				37600	3000	38
TCL4008-S	4" X 8"	18-1/4"	26-1/4"				37600	3000	42
TCL4008-ASAE*	4" X 8"	20-1/4"	28-1/4"				37600	3000	43
TCL4010-S	4" X 10"	20-1/4"	30-1/4"				37600	3000	46
TCL4012-S	4" X 12"	22-1/4"	34-1/4"				37600	3000	49
TCL4014-S	4" X 14"	24-1/4"	38-1/4"				37600	3000	53
TCL4016-S	4" X 16"	26-1/4"	42-1/4"				37600	3000	57
TCL4016-ASAE*	4" X 16"	31-1/2"	47-1/2"				37600	3000	57
TCL4018-S	4" X 18"	28-1/4"	46-1/4"				37600	3000	60
TCL4020-S	4" X 20"	30-1/4"	50-1/4"				37600	3000	64
TCL4024-S	4" X 24"	34-1/4"	58-1/4"				37600	3000	71
TCL4030-S	4" X 30"	40-1/4"	70-1/4"				30500	2400	82
TCL4036-S	4" X 36"	46-1/4"	82-1/4"				22200	1700	93

* NPT PORTS ARE ALSO AVAILABLE.
NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

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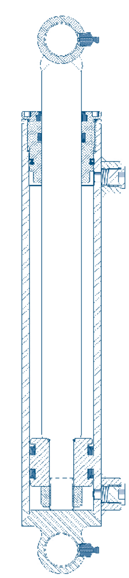
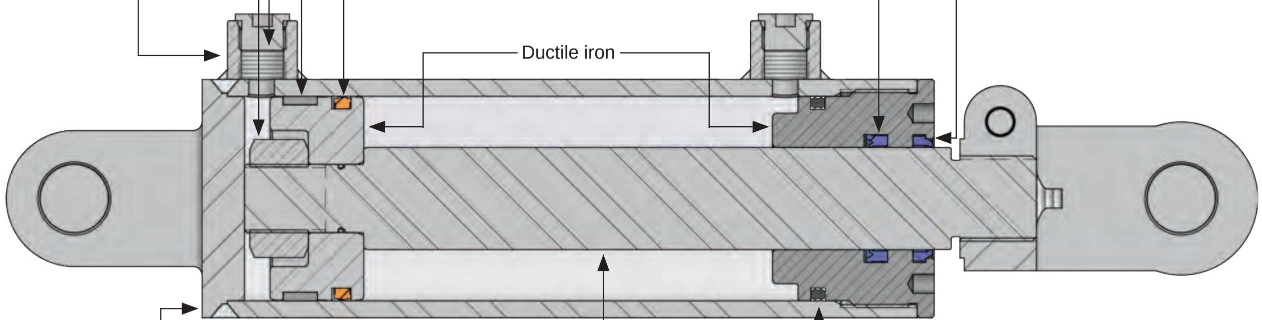
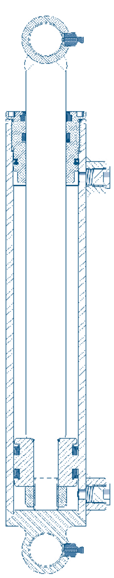
DESIGNATES AN INDUSTRY MOUNTING STANDARD FOR 8" AND 16" STROKE CYLINDERS



ADJUSTABLE FEMALE CLEVIS TYPE • 3000 PSI WP



SEAL TEMPERATURE RANGE : -30°C / +100°C (-22°F / +212°F)
SEAL MAXIMUM SPEED : 3 FT / SEC

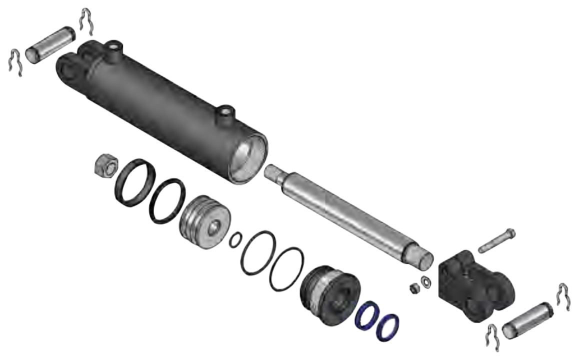


All seals are top grade/first quality North American made

All components are CNC machined for higher accuracy and conformity

Quality controlled in China by qualified Canadian technicians

100% tested. All cylinders are submitted to static and dynamic pressure tests to recommended specifications



NEW CUSTOM
TR2.5-XXXX-LA4
(BORE & STROKE)

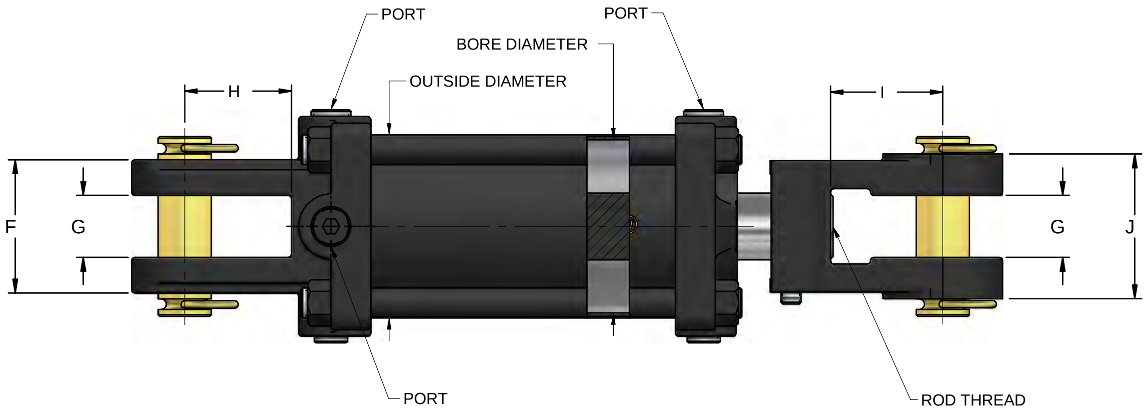
NEW!
TWO-IN-ONE PORT INTEGRATION
Save time & money

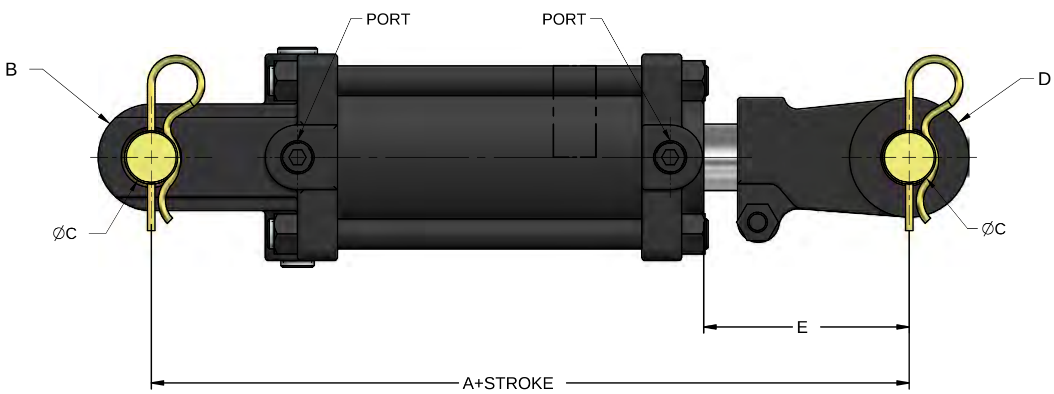
Why double your inventory, when a single cylinder can meet all your needs ?

With integrated
SAE (O-ring) & **NPT** ports
The all-in-one solution !

working together for better solutions

HC Hydro Custom

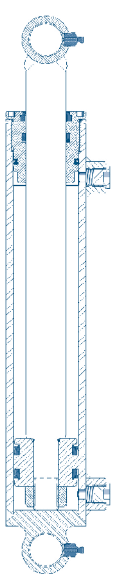




PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD THREAD[1]	A[2]	B	C[3]	D[4]	E[5]	F	G	H	I	J[4]	PORTS
TR2.5-20-LA4	2.00"	2.38"	1.125-12 UNF	10.25"	2.00"	1.01"	2.00"	4.17"	2.44"	1.14"	2.00"	2.12"	2.50"	3/8 NPT & SAE 8
TR2.5-25-LA4	2.50"	2.89"	1.125-12 UNF	10.25"	2.00"	1.01"	2.00"	4.17"	2.44"	1.14"	2.00"	2.12"	2.50"	3/8 NPT & SAE 8
TR2.5-30-LA4	3.00"	3.39"	1.25-12 UNF	10.25"	2.00"	1.01"	2.00"	4.14"	2.72"	1.14"	2.00"	2.12"	2.72"	1/2 NPT & SAE 8
TR2.5-35-LA4	3.50"	3.87"	1.25-12 UNF	10.25"	2.00"	1.01"	2.00"	4.09"	2.72"	1.14"	2.00"	2.12"	2.72"	1/2 NPT & SAE 8
TR2.5-40-LA4	4.00"	4.50"	1.25-12 UNF	10.25"	2.00"	1.01"	2.00"	3.82"	2.72"	1.14"	2.12"	2.12"	2.72"	1/2 NPT & SAE 8
TR2.5-50-LA4	5.00"	5.50"	1.500-12 UNF	12.25"	2.75"	1.26"	2.75"	5.00"	2.87"	1.25"	2.12"	2.12"	2.95"	1/2 NPT & SAE 10

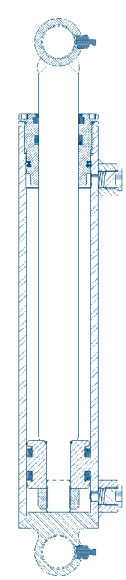
1. FOR TR2.5-2518 TO TR2.5-2536: ROD THREAD= 1.250-12 UNF
2. FOR 8.00" ASAE STROKE: A= 12.25"
   FOR 16.00" ASAE STROKE: A= 15.50"
3. FOR 16.00" ASAE STROKE: C= 1.26"
4. FOR TR2.5-4016-ASAE TO TR2.5-4036: D= 2.50" J=2.75" ROD THREAD= 1.500-12 UNF
5. FOR 8.00" ASAE STROKE: E= 5.75" (2.00" TO 3.00" BORE) E=5.62" (3.50" BORE) E=5.56" (4.00" BORE)
   FOR 16.00" ASAE STROKE: E= 9.00" (2.00" TO 3.00" BORE) E=8.87" (3.50" BORE) E=8.81" (4.00" BORE)

MAXIMUM RETRACTED WORKING PRESSURE= 2500 psi
MAXIMUM EXTENDED WORKING PRESSURE= SEE TABLE
FOR ALL CYLINDER, RETRACTED TOLERANCE ± 1/8"



AGRICULTURAL

PART NUMBER	BORE & STROKE	DIMENSIONS RETRACTED	DIMENSIONS EXTENDED	ROD DIAMETER	PIN SIZE	PORTS	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
TR2.5-2004-LA4	2" X 4"	14 1/4"	18 1/4"				7800	2500	16
TR2.5-2006-LA4	2" X 6"	16 1/4"	22 1/4"				7800	2500	17
TR2.5-2008-LA4	2" X 8"	18 1/4"	26 1/4"				7800	2500	19
TR2.5-2008-ASAE-LA4*	2" X 8"	20 1/4"	28 1/4"				7800	2500	20
TR2.5-2010-LA4	2" X 10"	20 1/4"	30 1/4"				7800	2500	20
TR2.5-2012-LA4	2" X 12"	22 1/4"	34 1/4"				7800	2500	22
TR2.5-2014-LA4	2" X 14"	24 1/4"	38 1/4"				7800	2500	24
TR2.5-2016-LA4	2" X 16"	26 1/4"	42 1/4"	1-1/8"	1"	3/8 NPT & SAE 8	7800	2500	25
TR2.5-2018-LA4	2" X 18"	28 1/4"	46 1/4"				7000	2200	27
TR2.5-2020-LA4	2" X 20"	30 1/4"	50 1/4"				5900	1900	28
TR2.5-2024-LA4	2" X 24"	34 1/4"	58 1/4"				4400	1400	31
TR2.5-2030-LA4	2" X 30"	40 1/4"	70 1/4"				3000	900	36
TR2.5-2036-LA4	2" X 36"	46 1/4"	82 1/4"				2200	700	41
TR2.5-2040-LA4	2" X 40"	50 1/4"	90 1/4"				1700	500	44
TR2.5-2048-LA4	2" X 48"	58 1/4"	106 1/4"				1300	400	49
TR2.5-2504-LA4	2.5" X 4"	14 1/4"	18 1/4"				12200	2500	19
TR2.5-2506-LA4	2.5" X 6"	16 1/4"	22 1/4"				12200	2500	21
TR2.5-2508-LA4	2.5" X 8"	18 1/4"	26 1/4"				12200	2500	22
TR2.5-2508-ASAE-LA4*	2.5" X 8"	20 1/4"	28 1/4"				12200	2500	23
TR2.5-2510-LA4	2.5" X 10"	20 1/4"	30 1/4"				12200	2500	24
TR2.5-2512-LA4	2.5" X 12"	22 1/4"	34 1/4"	1-1/8"			12200	2500	26
TR2.5-2514-LA4	2.5" X 14"	24 1/4"	38 1/4"				10300	2100	28
TR2.5-2516-LA4	2.5" X 16"	26 1/4"	42 1/4"		1"	3/8 NPT & SAE 8	8400	1700	29
TR2.5-2518-LA4	2.5" X 18"	28 1/4"	46 1/4"				7000	1400	32
TR2.5-2520-LA4	2.5" X 20"	30 1/4"	50 1/4"				5900	1200	34
TR2.5-2524-LA4	2.5" X 24"	34 1/4"	58 1/4"				4400	900	38
TR2.5-2530-LA4	2.5" X 30"	40 1/4"	70 1/4"				4400	900	43
TR2.5-2536-LA4	2.5" X 36"	46 1/4"	82 1/4"	1-1/4"			3400	600	49
TR2.5-2540-LA4	2.5" X 40"	50 1/4"	90 1/4"				2700	500	54
TR2.5-2548-LA4	2.5" X 48"	58 1/4"	106 1/4"				2000	400	60
TR2.5-3004-LA4	3" X 4"	14 1/4"	18 1/4"				17600	2500	24
TR2.5-3006-LA4	3" X 6"	16 1/4"	22 1/4"				17600	2500	26
TR2.5-3008-LA4	3" X 8"	18 1/4"	26 1/4"				17600	2500	28
TR2.5-3008-ASAE-LA4*	3" X 8"	20 1/4"	28 1/4"	1-1/4"	1"		17600	2500	29
TR2.5-3010-LA4	3" X 10"	20 1/4"	30 1/4"				17600	2500	30
TR2.5-3012-LA4	3" X 12"	22 1/4"	34 1/4"				17600	2500	33
TR2.5-3014-LA4	3" X 14"	24 1/4"	38 1/4"				15700	2200	35
TR2.5-3016-LA4	3" X 16"	26 1/4"	42 1/4"			1/2 NPT & SAE 8	12800	1800	37
TR2.5-3016-ASAE-LA4*	3" X 16"	31 1/2"	47 1/2"	1-1/2"	1-1/4"		9200	1300	42
TR2.5-3018-LA4	3" X 18"	28 1/4"	46 1/4"				11300	1600	42
TR2.5-3020-LA4	3" X 20"	30 1/4"	50 1/4"	1-1/4"			9200	1300	44
TR2.5-3024-LA4	3" X 24"	34 1/4"	58 1/4"				6700	900	49
TR2.5-3030-LA4	3" X 30"	40 1/4"	70 1/4"		1"		9600	1300	57
TR2.5-3036-LA4	3" X 36"	46 1/4"	82 1/4"	1-1/2"			7000	900	65
TR2.5-3040-LA4	3" X 40"	50 1/4"	90 1/4"				5700	800	70
TR2.5-3048-LA4	3" X 48"	58 1/4"	106 1/4"				3900	500	80



NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

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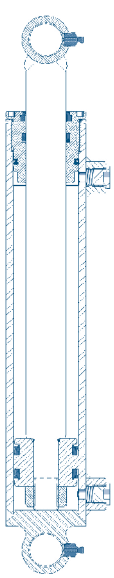
DESIGNATES AN INDUSTRY MOUNTING STANDARD FOR 8" AND 16" STROKE CYLINDERS

HYDRAULIC TIE - ROD CYLINDERS - 2500 PSI WP

HC Hydro Custom



AGRICULTURAL									
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS	COLUMN LOADS (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
TR2.5-3504-LA4	3.5” X 4”	14 1/4”	18 1/4”				24000	2500	29
TR2.5-3506-LA4	3.5” X 6”	16 1/4”	22 1/4”				24000	2500	32
TR2.5-3508-LA4	3.5” X 8”	18 1/4”	26 1/4”				24000	2500	34
TR2.5-3508-ASAE-LA4*	3.5” X 8”	20 1/4”	28 1/4”	1 1/4”	1”		24000	2500	35
TR2.5-3510-LA4	3.5” X 10”	20 1/4”	30 1/4”				24000	2500	37
TR2.5-3512-LA4	3.5” X 12”	22 1/4”	34 1/4”				19600	2000	39
TR2.5-3514-LA4	3.5” X 14”	24 1/4”	38 1/4”				15700	1600	42
TR2.5-3516-LA4	3.5” X 16”	26 1/4”	42 1/4”				12800	1300	44
TR2.5-3516-ASAE-LA4*	3.5” X 16”	31 1/2”	47 1/2”	1 1/2”	1 1/4”	1/2 NPT & SAE 8	21100	2100	50
TR2.5-3518-LA4	3.5” X 18”	28 1/4”	46 1/4”	1 1/4”			10700	1100	47
TR2.5-3520-LA4	3.5” X 20”	30 1/4”	50 1/4”				9100	900	49
TR2.5-3524-LA4	3.5” X 24”	34 1/4”	58 1/4”				14000	1400	58
TR2.5-3530-LA4	3.5” X 30”	40 1/4”	70 1/4”		1”		9600	1000	66
TR2.5-3536-LA4	3.5” X 36”	46 1/4”	82 1/4”	1 1/2”			7000	700	74
TR2.5-3540-LA4	3.5” X 40”	50 1/4”	90 1/4”				5800	600	80
TR2.5-3548-LA4	3.5” X 48”	58 1/4”	1061/4”				3900	400	91
TR2.5-4004-LA4	4” X 4”	14 1/4”	18 1/4”				31400	2500	33
TR2.5-4006-LA4	4” X 6”	16 1/4”	22 1/4”				31400	2500	36
TR2.5-4008-LA4	4” X 8”	18 1/4”	26 1/4”				31400	2500	38
TR2.5-4008-ASAE-LA4*	4” X 8”	20 1/4”	28 1/4”	1 1/2”	1”		31400	2500	39
TR2.5-4010-LA4	4” X 10”	20 1/4”	30 1/4”				31400	2500	41
TR2.5-4012-LA4	4” X 12”	22 1/4”	34 1/4”				31400	2500	44
TR2.5-4014-LA4	4” X 14”	24 1/4”	38 1/4”				31400	2500	46
TR2.5-4016-LA4	4” X 16”	26 1/4”	42 1/4”				26700	2100	49
TR2.5-4016-ASAE-LA4*	4” X 16”	31 1/2”	47 1/2”	2”	1 1/4”	1/2 NPT & SAE 8	31400	2500	63
TR2.5-4018-LA4	4” X 18”	28 1/4”	46 1/4”				22300	1700	55
TR2.5-4020-LA4	4” X 20”	30 1/4”	50 1/4”	1 1/2”			18800	1500	58
TR2.5-4024-LA4	4” X 24”	34 1/4”	58 1/4”				14000	1100	64
TR2.5-4024-175-LA4	4” X 24”	34 1/4”	58 1/4”	1 3/4”			26000	2050	68
TR2.5-4024-200-LA4	4” X 24”	34 1/4”	58 1/4”		1”		31400	2500	73
TR2.5-4030-LA4	4” X 30”	40 1/4”	70 1/4”				30500	2400	84
TR2.5-4036-LA4	4” X 36”	46 1/4”	82 1/4”	2”			22200	1700	95
TR2.5-4040-LA4	4” X 40”	50 1/4”	90 1/4”				18200	1400	103
TR2.5-4048-LA4	4” X 48”	58 1/4”	106 1/4”				13200	1000	118

NOTE : COLUMN LOAD IS THE MAXIMUM PUSHING LOAD SUGGESTED USING A MINIMUM SAFETY FACTOR OF 2 AND BASED ON A PIN TO PIN MOUNTING CALCULATION.

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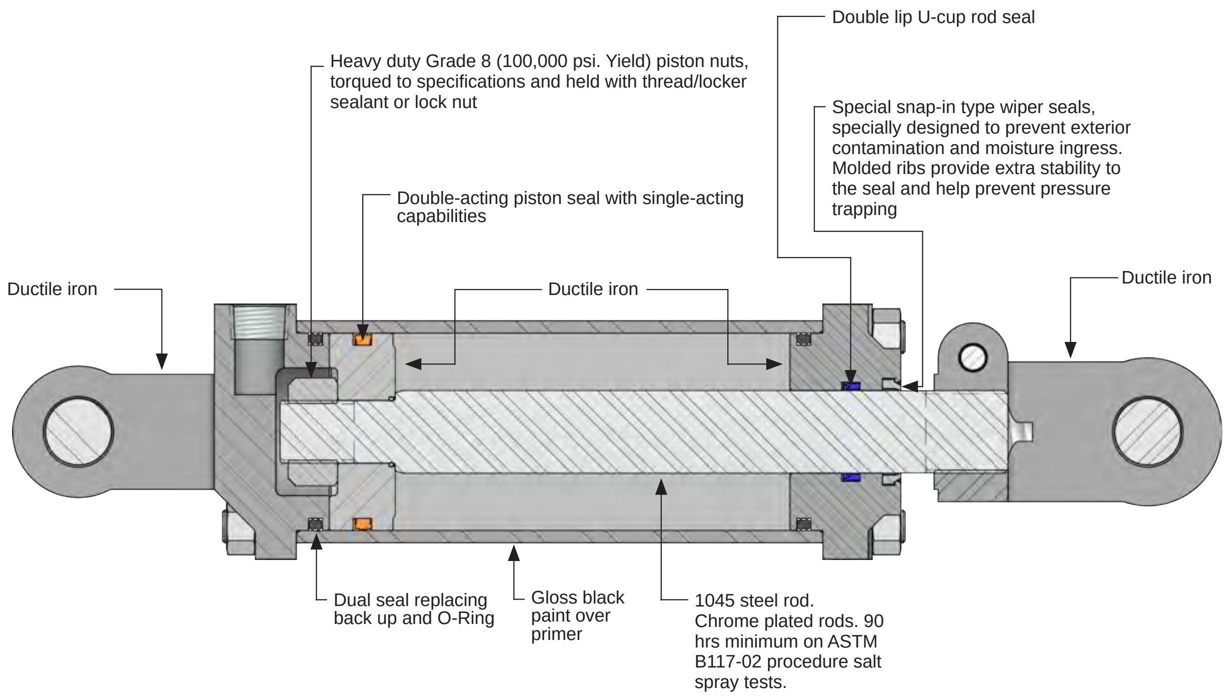


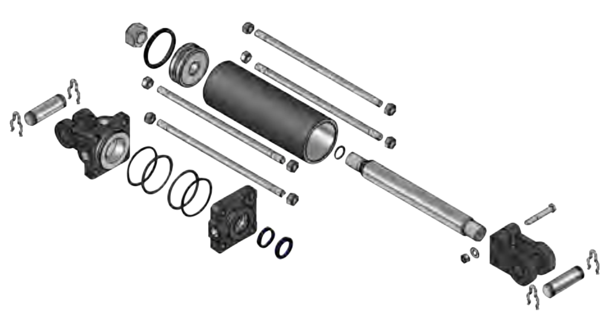
SEAL TEMPERATURE RANGE: -30˚C / +100˚C (-22˚F / +212˚F)
SEAL MAXIMUM SPEED: 3 FT / SEC

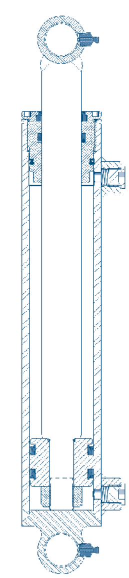
All seals are top grade/first quality North American made

All components are CNC machined for higher accuracy and conformity

Quality controlled in China by qualified Canadian technicians

100% tested. All cylinders are submitted to static and dynamic pressure tests to recommended specifications





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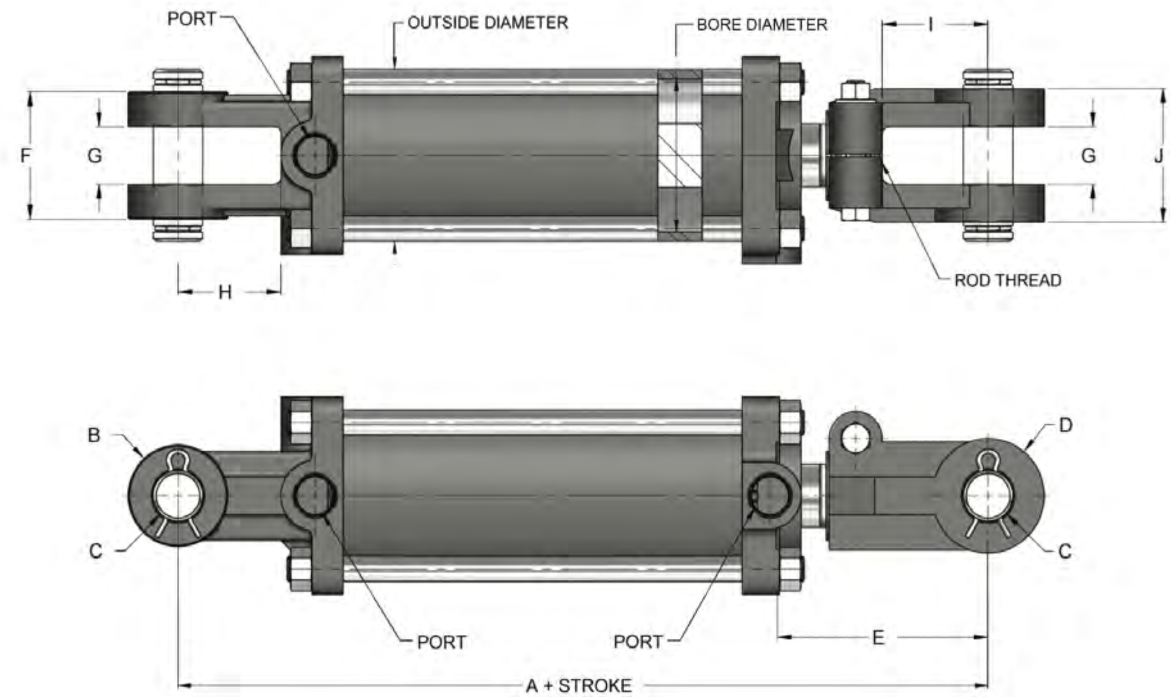
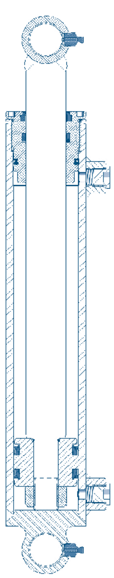


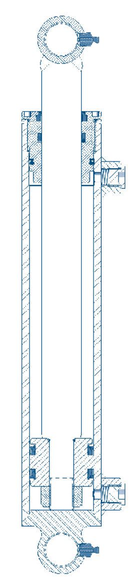
PART NUMBER	CYLINDER BORE	OUTSIDE DIAMETER	ROD THREAD	A1	B	C2	D	E3	F	G4	H	I	J	PORTS
TR3-20	2.00”	2.38”	1.125-12 UNF	10.25”	2.00”	1.01”	2.00”	4.17”	2.44”	1.14”	2.00”	2.12”	2.50”	SAE 8
TR3-25	2.50”	2.89”	1.125-12 UNF	10.25”	2.00”	1.01”	2.00”	4.17”	2.44”	1.14”	2.00”	2.12”	2.50”	SAE 8
TR3-30	3.00”	3.39”	1.25-12 UNF	10.25”	2.00”	1.01”	2.00”	4.14”	2.72”	1.14”	2.00”	2.12”	2.72”	SAE 8
TR3-35	3.50”	4.00”	1.25-12 UNF	10.25”	2.00”	1.01”	2.00”	4.09”	2.72”	1.14”	2.00”	2.12”	2.72”	SAE 8
TR3-40	4.00”	4.50”	1.25-12 UNF	10.25”	2.00”	1.01”	2.00”	3.82”	2.72”	1.14”	2.12”	2.12”	2.72”	SAE 8
TR3-50	5.00”	5.50”	1.500-12 UNF	12.25”	2.75”	1.26”	2.75”	5.00”	2.87”	1.25”	2.12”	2.12”	2.95”	SAE 10

1. FOR 8.00" ASAE STROKE : A = 12.25"
   FOR 16.00" ASAE STROKE : A = 15.50"
2. FOR 16.00" ASAE STROKE : C = 1.26"
3. FOR 8.00" ASAE STROKE : E = 5.75" (2.00" TO 3.00" BORE) E = 5.62" (3.50" BORE) E = 5.56" (4.00" BORE)
   FOR 16.00" ASAE STROKE : E = 9.00" (3.00" BORE) E = 8.87" (3.50" BORE) E = 8.81" (4.00" BORE) E = 7.43" (5.00" BORE)
4. FOR 5.00" BORE : G (FRONT CLEVIS) = 1.18" G (END CAP) = 1.31"

MAXIMUM RETRACTED WORKING PRESSURE = 3000 psi
MAXIMUM EXTENDED WORKING PRESSURE = SEE TABLE
RETRACTED AND STROKE TOLERANCE ± 1/8"
DIMENSIONS A AND E ARE FOR REFERENCES ONLY AS CLEVIS IS ADJUSTABLE
* NPT PORTS ARE ALSO AVAILABLE.



AGRICULTURAL									
PART NUMBER	BORE & STROKE	DIMENSIONS		ROD DIAMETER	PIN SIZE	PORTS	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
		RETRACTED	EXTENDED						
TR3-2004-S	2" X 4"	14-1/4"	18-1/4"				9400	3000	17
TR3-2006-S	2" X 6"	16-1/4"	22-1/4"				9400	3000	19
TR3-2008-S	2" X 8"	18-1/4"	26-1/4"				9400	3000	21
TR3-2008-ASAE*	2" X 8"	20-1/4"	28-1/4"				9400	3000	22
TR3-2010-S	2" X 10"	20-1/4"	30-1/4"				9400	3000	23
TR3-2012-S	2" X 12"	22-1/4"	34-1/4"				9400	3000	25
TR3-2014-S	2" X 14"	24-1/4"	38-1/4"	1-1/8"	1"	SAE 8	9400	3000	27
TR3-2016-S	2" X 16"	26-1/4"	42-1/4"				8400	2600	28
TR3-2018-S	2" X 18"	28-1/4"	46-1/4"				7000	2200	30
TR3-2020-S	2" X 20"	30-1/4"	50-1/4"				5900	1900	32
TR3-2024-S	2" X 24"	34-1/4"	58-1/4"				4400	1400	36
TR3-2030-S	2" X 30"	40-1/4"	70-1/4"				3000	900	41
TR3-2036-S	2" X 36"	46-1/4"	82-1/4"				2200	700	47
TR3-2504-S	2.5" X 4"	14-1/4"	18-1/4"				14700	3000	22
TR3-2506-S	2.5" X 6"	16-1/4"	22-1/4"				14700	3000	24
TR3-2508-S	2.5" X 8"	18-1/4"	26-1/4"				14700	3000	26
TR3-2508-ASAE*	2.5" X 8"	20-1/4"	28-1/4"				14700	3000	27
TR3-2510-S	2.5" X 10"	20-1/4"	30-1/4"				14700	3000	29
TR3-2512-S	2.5" X 12"	22-1/4"	34-1/4"				14700	3000	31
TR3-2514-S	2.5" X 14"	24-1/4"	38-1/4"	1-1/4"	1"	SAE 8	14700	3000	34
TR3-2516-S	2.5" X 16"	26-1/4"	42-1/4"				12800	2600	36
TR3-2518-S	2.5" X 18"	28-1/4"	46-1/4"				10700	2100	38
TR3-2520-S	2.5" X 20"	30-1/4"	50-1/4"				9100	1800	41
TR3-2524-S	2.5" X 24"	34-1/4"	58-1/4"				6700	1300	45
TR3-2530-S	2.5" X 30"	40-1/4"	70-1/4"				4600	900	53
TR3-2536-S	2.5" X 36"	46-1/4"	82-1/4"				3400	600	60
TR3-3004-S	3" X 4"	14-1/4"	18-1/4"				21200	3000	26
TR3-3006-S	3" X 6"	16-1/4"	22-1/4"				21200	3000	29
TR3-3008-S	3" X 8"	18-1/4"	26-1/4"				21200	3000	32
TR3-3008-ASAE*	3" X 8"	20-1/4"	28-1/4"	1-1/4"			21200	3000	32
TR3-3010-S	3" X 10"	20-1/4"	30-1/4"		1"		21200	3000	34
TR3-3012-S	3" X 12"	22-1/4"	34-1/4"				21200	3000	37
TR3-3014-S	3" X 14"	24-1/4"	38-1/4"				21200	3000	40
TR3-3016-S	3" X 16"	26-1/4"	42-1/4"			SAE 8	18800	2600	43
TR3-3016-ASAE*	3" X 16"	31-1/2"	47-1/2"		1-1/4"		14900	2100	45
TR3-3018-S	3" X 18"	28-1/4"	46-1/4"				15700	2200	45
TR3-3020-S	3" X 20"	30-1/4"	50-1/4"	1-1/2"			13300	1800	48
TR3-3024-S	3" X 24"	34-1/4"	58-1/4"		1"		9900	1400	53
TR3-3030-S	3" X 30"	40-1/4"	70-1/4"				6800	900	62
TR3-3036-S	3" X 36"	46-1/4"	82-1/4"				4900	700	70



* NPT PORTS ARE ALSO AVAILABLE.
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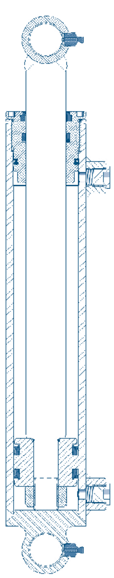
HYDRAULIC TIE - ROD CYLINDERS - 3000 PSI WP

Hydro Custom



AGRICULTURAL

PART NUMBER	BORE & STROKE	DIMENSIONS RETRACTED	DIMENSIONS EXTENDED	ROD DIAMETER	PIN SIZE	PORTS	COLUMN LOAD (LBS)	PRESSURE (PSI)	WEIGHT (LBS)
TR3-3504-S	3.5" X 4"	14-1/4"	18-1/4"				28800	3000	34
TR3-3506-S	3.5" X 6"	16-1/4"	22-1/4"				28800	3000	37
TR3-3508-S	3.5" X 8"	18-1/4"	26-1/4"				28800	3000	40
TR3-3508-ASAE*	3.5" X 8"	20-1/4"	28-1/4"	1-3/8"	1"		28800	3000	41
TR3-3510-S	3.5" X 10"	20-1/4"	30-1/4"				28300	2900	44
TR3-3512-S	3.5" X 12"	22-1/4"	34-1/4"				28700	2900	47
TR3-3514-S	3.5" X 14"	24-1/4"	38-1/4"				23000	2300	50
TR3-3516-S	3.5" X 16"	26-1/4"	42-1/4"			SAE 8	18800	1900	53
TR3-3516-ASAE*	3.5" X 16"	31-1/2"	47-1/2"		1-1/4"		14900	1500	56
TR3-3518-S	3.5" X 18"	28-1/4"	46-1/4"				15700	1600	56
TR3-3520-S	3.5" X 20"	30-1/4"	50-1/4"	1-1/2"			13300	1300	60
TR3-3524-S	3.5" X 24"	34-1/4"	58-1/4"		1"		9900	1000	66
TR3-3530-S	3.5" X 30"	40-1/4"	70-1/4"				6800	700	76
TR3-3536-S	3.5" X 36"	46-1/4"	82-1/4"				4900	500	85
TR3-4004-S	4" X 4"	14-1/4"	18-1/4"				37600	3000	41
TR3-4006-S	4" X 6"	16-1/4"	22-1/4"				37600	3000	45
TR3-4008-S	4" X 8"	18-1/4"	26-1/4"				37600	3000	49
TR3-4008-ASAE*	4" X 8"	20-1/4"	28-1/4"	1-1/2"	1"		37600	3000	50
TR3-4010-S	4" X 10"	20-1/4"	30-1/4"				37600	3000	52
TR3-4012-S	4" X 12"	22-1/4"	34-1/4"				37600	3000	56
TR3-4014-S	4" X 14"	24-1/4"	38-1/4"				37600	3000	60
TR3-4016-S	4" X 16"	26-1/4"	42-1/4"			SAE 8	37600	3000	64
TR3-4016-ASAE*	4" X 16"	31-1/2"	47-1/2"		1-1/4"		37600	3000	68
TR3-4018-S	4" X 18"	28-1/4"	46-1/4"	1-3/4"			37600	3000	68
TR3-4020-S	4" X 20"	30-1/4"	50-1/4"				35000	2700	72
TR3-4024-S	4" X 24"	34-1/4"	58-1/4"		1"		26000	2000	80
TR3-4030-S	4" X 30"	40-1/4"	70-1/4"	2"			17900	1400	92
TR3-4036-S	4" X 36"	46-1/4"	82-1/4"				13000	1000	104
TR3-5004-S	5" X 4"	16-1/4"	20-1/4"				58900	3000	71
TR3-5006-S	5" X 6"	18-1/4"	24-1/4"				58900	3000	76
TR3-5008-ASAE*	5" X 8"	22-1/4"	30-1/4"				58900	3000	81
TR3-5010-S	5" X 10"	22-1/4"	32-1/4"				58900	3000	86
TR3-5012-S	5" X 12"	24-1/4"	36-1/4"				58900	3000	91
TR3-5014-S	5" X 14"	26-1/4"	40-1/4"				58900	3000	96
TR3-5016-S	5" X 16"	28-1/4"	44-1/4"	2"	1-1/4"	SAE 8	58900	3000	101
TR3-5016-ASAE*	5" X 16"	31-1/2"	47-1/2"				58900	3000	104
TR3-5018-S	5" X 18"	30-1/4"	48-1/4"				58900	3000	106
TR3-5020-S	5" X 20"	32-1/4"	52-1/4"				55200	2800	112
TR3-5024-S	5" X 24"	36-1/4"	60-1/4"				41500	2100	122
TR3-5030-S	5" X 30"	42-1/4"	72-1/4"				28800	1400	137
TR3-5036-S	5" X 36"	48-1/4"	84-1/4"				21200	1000	153

* NPT PORTS ARE ALSO AVAILABLE.
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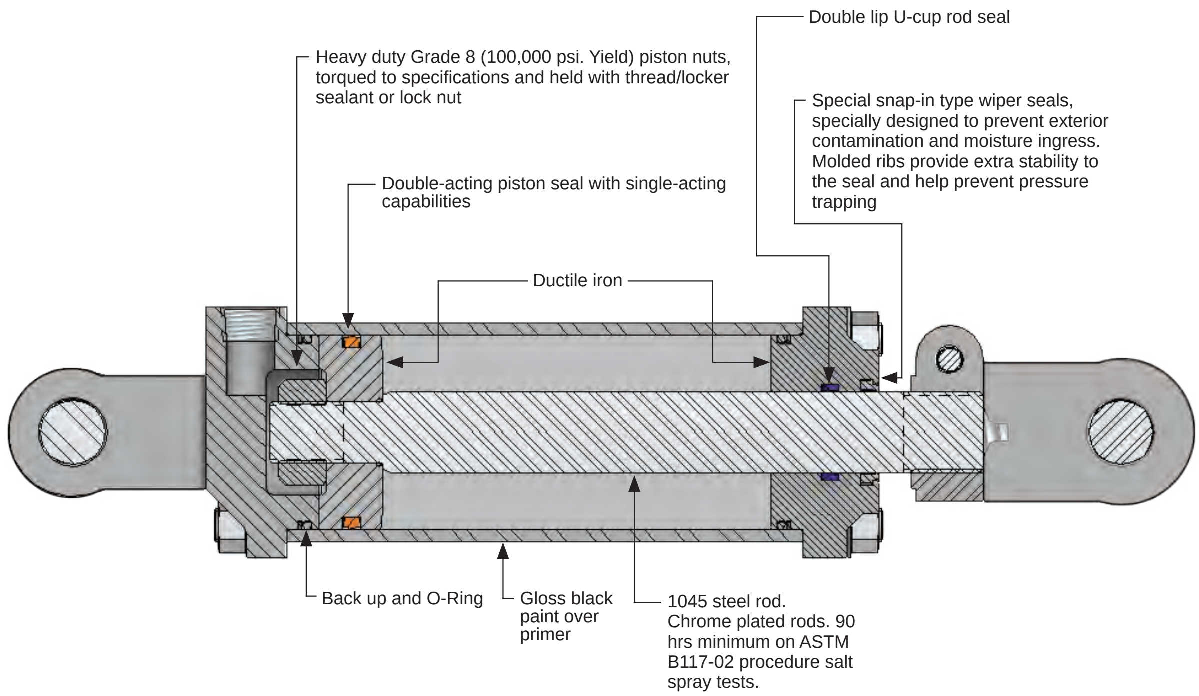


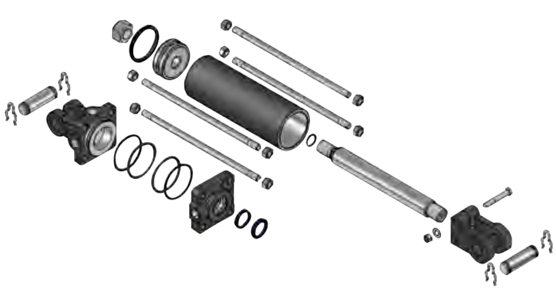
SEAL TEMPERATURE RANGE : -30˚C / +100˚C (-22˚F / +212˚F)
SEAL MAXIMUM SPEED : 3 FT / SEC

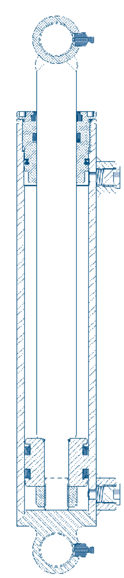
All seals are top grade/first quality North American made

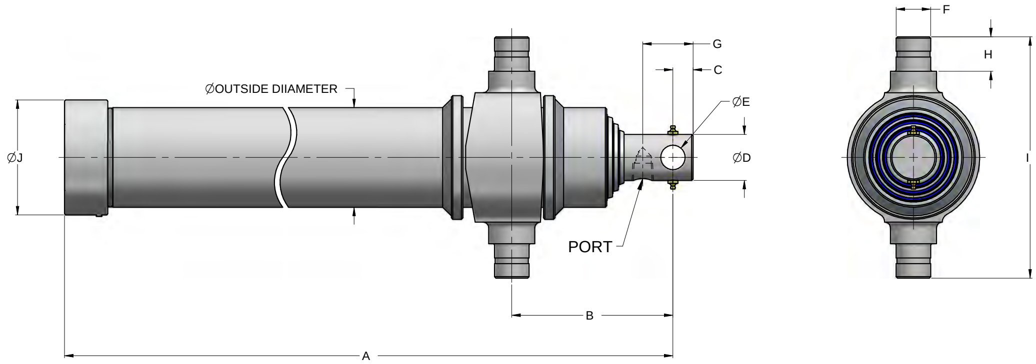
All components are CNC machined for higher accuracy and conformity

Quality controlled in China by qualified Canadian technicians

100% tested. All cylinders are submitted to static and dynamic pressure tests to recommended specifications



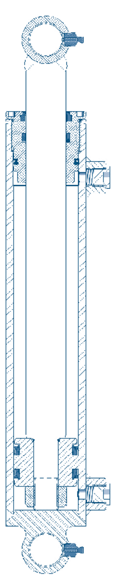


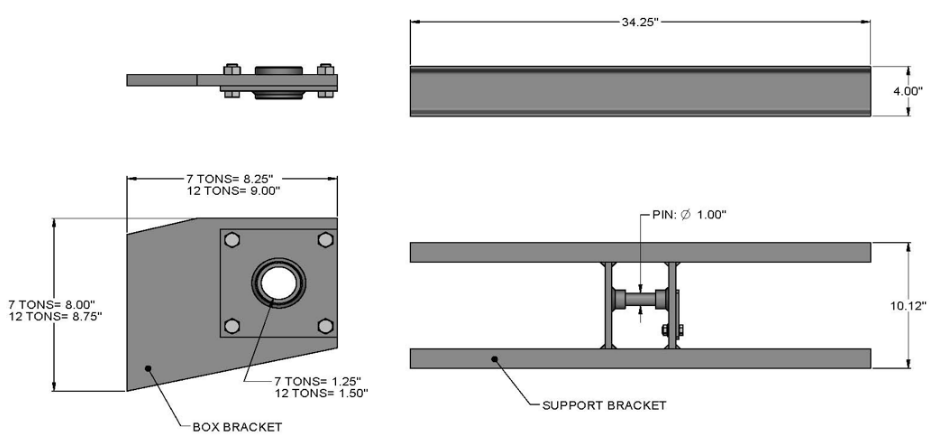


PART NUMBER	CAPACITY	STROKE	OUTSIDE DIAMETER	A	B	C	D	E	F	G	H	I	J	PORT	WEIGHT (LBS)
7 TONS-INVERTED TELESCOPIC CYLINDERS (2100 PSI MAX. WORKING PRESSURE)															
TC-07833-S-PT		78”	3.75”	34.62”											86
TC-09033-S-PT	7 TONS	90”	3.75”	38.62”	7.00”	0.87”	2.00”	1.015”	1.25”	2.25”	1.25”	9.00”	4.25”	1/2 SAE-08	94
TC-10833-S-PT		108”	3.75”	44.62”											106

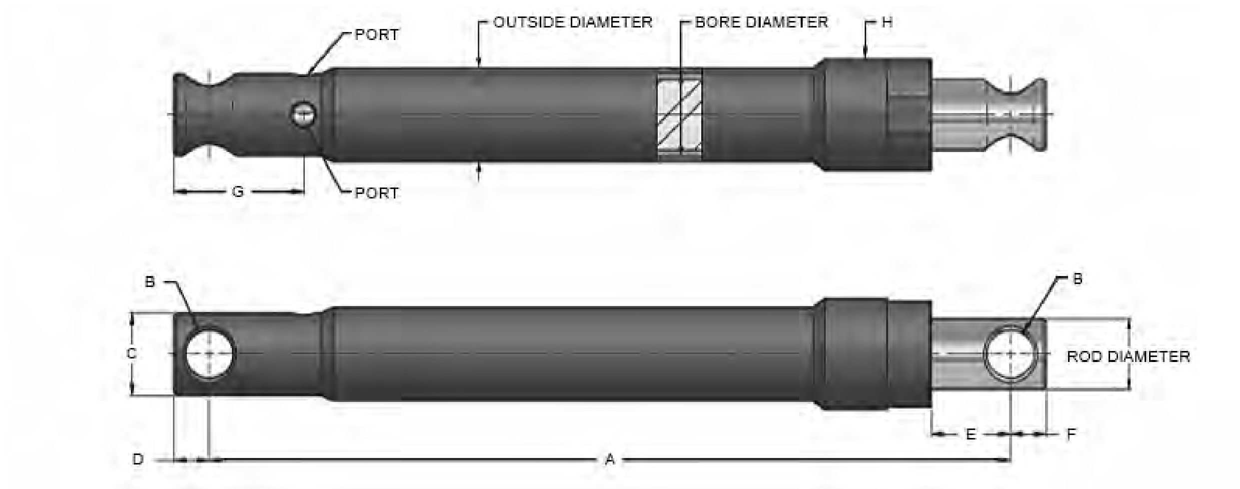
PART NUMBER	CAPACITY	STROKE	OUTSIDE DIAMETER	A	B	C	D	E	F	G	H	I	J	PORT	WEIGHT (LBS)
12 TONS-INVERTED TELESCOPIC CYLINDERS (2450 PSI MAX. WORKING PRESSURE)															
TC-07843-S-PT		78”	4.50”	33.87”											99
TC-09043-S-PT		90”	4.50”	37.87”	7.00”										109
TC-10843-S-PT		108”	4.50”	43.87”											125
TC-12043-S-PT	12 TONS	120”	4.50”	47.87”		0.87”	2.00”	1.015”	1.50”	2.25”	1.50”	10.50”	5.00”	1/2 SAE-0	138
TC-12043M-S-PT		120”	4.50”	47.87”											137
TC-13243M-S-PT		132”	4.50”	51.87”	13.00”										157
TC-14443M-S-PT		144”	4.50”	55.87”											171

RETRACTED TOLERANCE ± 1/8”





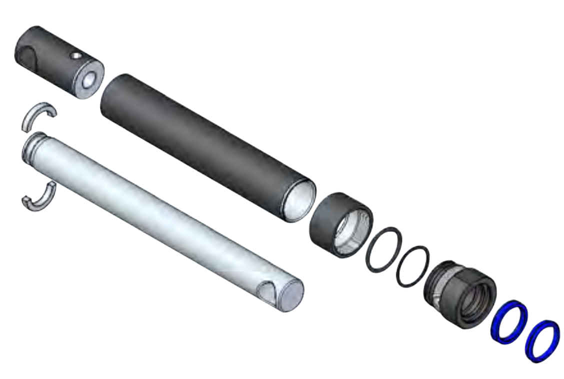
PART NUMBER	DESCRIPTION
TELESCOPIC ACCESSORIES	
TC-SB	BRACKET FOR 7 AND 12 TONS
TC-S07	BOX BRACKET KIT 7 TONS
TC-S12	BOX BRACKET KIT 12 TONS

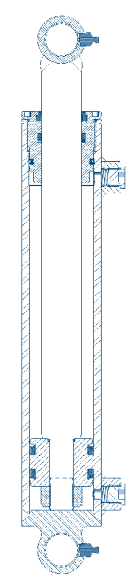


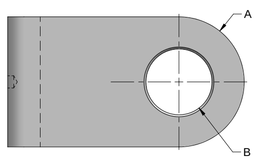
PART NUMBER	REPLA-CEMENT	BORE & STROKE	OUTSIDE DIAMETER	ROD DIAMETER	A	B	C	D	E	F	G	H	PORT	WEIGHT (LBS)
ASP-1510-0750	ARCTIC	1.75" X 10.00"	2.00"	1.50"	17.00"	0.76"	1.75"	0.75"	1.68"	0.75"	2.75"	2.37"	1/4-NPT (2X)	12
ASP-1512-0750	ARCTIC	1.75" X 12.00"	2.00"	1.50"	19.00"	0.76"	1.75"	0.75"	1.68"	0.75"	2.75"	2.37"	1/4-NPT (2X)	13
FSP-1510-1000	FISHER	1.75" X 10.00"	2.00"	1.50"	17.00"	1.01"	1.75"	0.75"	1.68"	0.75"	2.75"	2.37"	1/4-NPT (2X)	11
FSP-1512-1000	FISHER	1.75" X 12.00"	2.00"	1.50"	19.25"	1.01"	1.75"	0.75"	1.93"	0.75"	2.75"	2.37"	1/4-NPT (2X)	13
FSP-2016-1250	FISHER	2.25" X 16.00"	2.50"	2.00"	23.25"	1.26"	2.25"	0.87"	1.75"	0.87"	2.75"	3.00"	1/4-NPT (2X)	27
MSP-1506-0625	MEYER	1.75" X 6.00"	2.00"	1.50"	12.37"	0.63"	1.62"	0.75"	1.56"	0.75"	2.12"	2.37"	1/4-NPT	9
MSP-1510-0625	MEYER	1.75" X 10.00"	2.00"	1.50"	16.18"	0.63"	1.62"	0.75"	1.62"	0.75"	2.12"	2.37"	1/4-NPT	14
MSP-1512-0625	MEYER	1.75" X 12.00"	2.00"	1.50"	18.00"	0.63"	1.62"	0.75"	1.43"	0.75"	2.12"	2.37"	1/4-NPT	15
MSP-2012-0625	MEYER	2.25" X 12.00"	2.50"	2.00"	18.00"	0.63"	1.62"	0.75"	0.75"	0.75"	2.25"	3.00"	1/4-NPT	24
WSP-1506-0750	WESTERN	1.75" X 6.00"	2.00"	1.50"	13.00"	0.76"	1.75"	0.68"	1.37"	0.68"	2.75"	2.37"	1/4-NPT (2X)	11
WSP-1508-0750	WESTERN	1.75" X 8.00"	2.00"	1.50"	15.25"	0.76"	1.75"	0.68"	1.62"	0.68"	2.75"	2.37"	1/4-NPT (2X)	12
WSP-1510-0750	WESTERN	1.75" X 10.00"	2.00"	1.50"	17.25"	0.76"	1.75"	0.68"	1.62"	0.68"	2.75"	2.37"	1/4-NPT (2X)	14
WSP-1510-1000	WESTERN	1.75" X 10.00"	2.00"	1.50"	17.00"	1.01"	1.75"	0.75"	1.43"	0.75"	2.75"	2.37"	1/4-NPT (2X)	14
WSP-2006-0750	WESTERN	2.25" X 6.00"	2.50"	2.00"	13.18"	0.76"	2.25"	0.75"	1.56"	0.75"	2.75"	3.00"	1/4-NPT (2X)	18
WSP-2010-1000	WESTERN	2.25" X 10.00"	2.50"	2.00"	17.25"	1.01"	2.25"	0.75"	1.62"	0.75"	2.75"	3.00"	1/4-NPT (2X)	22
WSP-2016-1000	WESTERN	2.25" X 16.00"	2.50"	2.00"	23.31"	1.01"	2.25"	0.75"	1.68"	0.75"	2.56"	3.00"	1/4-NPT (2X)	31

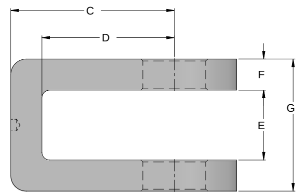
SEAL TEMPERATURE RANGE : -30˚C / +100˚C (-22˚F / +212˚F)
SEAL MAXIMUM SPEED : 3 FT / SEC

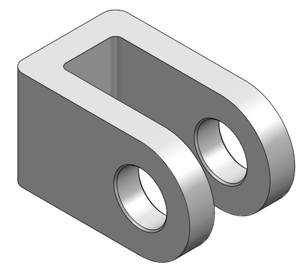
CYLINDER WITH 1 PORT = PORT IN LINE WITH PIN HOLE
RETRACTED AND STROKE TOLERANCE ± 1/8"







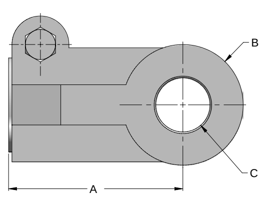


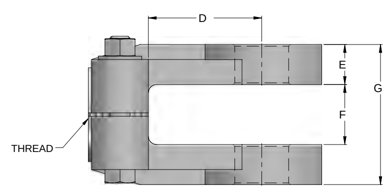


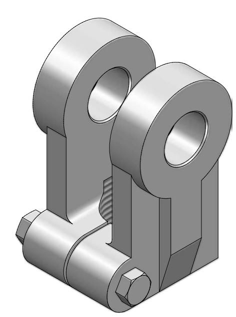
FEMALE CLEVIS

PART NUMBER	A	B	C	D	E	F	G	MAXIMUM LOAD PUSH / PULL (LBS)
CL-100075-CLP	1.50"	0.76"	1.75"	1.37"	0.87"	0.37"	1.62"	5300
CL-125100-CLP	2.00"	1.01"	2.62"	2.12"	1.12"	0.50"	2.12"	22500
CL-175100-CLP	2.00"	1.01"	2.62"	2.12"	1.12"	0.62"	2.37"	28100
CL-200100-CLP	2.00"	1.01"	2.62"	2.00"	1.12"	0.62"	2.37"	28100
CL-250150-CLP	3.00"	1.51"	3.00"	2.25"	1.62"	0.75"	3.12"	50600

MATERIAL : C1045 CAST STEEL
MAXIMUM PUSHING & PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2



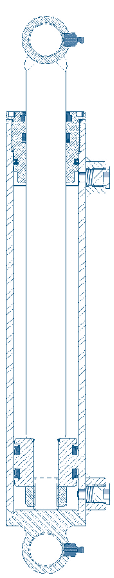


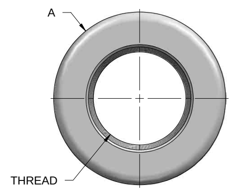


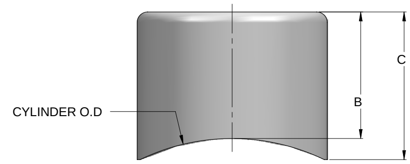
ADJUSTABLE CLEVIS

PART NUMBER	THREAD	A	B	C	D	E	F	G	MAXIMUM LOAD PUSH / PULL (LBS)
ST-0870718-CVP	0.875-14 UNF	2.75"	1.87"	0.76"	1.62"	0.56"	0.87"	2.00"	5300
ST-1121020-CVP	1.125-12 UNF	3.25"	2.00"	1.01"	2.12"	0.75"	1.12"	2.62"	23000
ST-1121022-CVP	1.125-12 UNF	3.25"	2.25"	1.01"	2.12"	0.75"	1.12"	2.62"	23000
ST-1121222-CVP	1.125-12 UNF	3.25"	2.25"	1.26"	2.12"	0.75"	1.12"	2.62"	23000
ST-1251022-CVP	1.250-12 UNF	3.25"	2.25"	1.01"	2.12"	0.75"	1.12"	2.62"	23000
ST-1311025-CVP	1.312-12 UN	3.25"	2.50"	1.01"	2.12"	0.81"	1.12"	2.75"	33700
ST-1311225-CVP	1.312-12 UN	3.25"	2.50"	1.26"	2.12"	0.81"	1.12"	2.75"	33700
ST-1501025-CVP	1.500-12 UNF	3.25"	2.50"	1.01"	2.12"	0.81"	1.12"	2.75"	33700
ST-1501225-CVP	1.500-12 UNF	3.25"	2.50"	1.26"	2.12"	0.81"	1.12"	2.75"	33700
ST-1501226-CVP	1.500-12 UNF	3.62"	2.75"	1.26"	2.12"	1.06"	1.18"	3.31"	58900

MATERIAL : C1045 CAST STEEL / DUCTILE IRON
MAXIMUM PUSHING & PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2



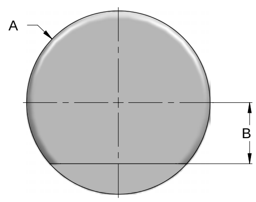


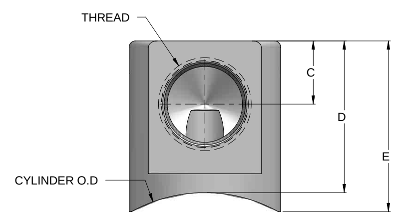


PORT NPT					
PART NUMBER	CYLINDER O.D	THREAD	A	B	C
025N-200062-POP	2.00”	1/4 NPT	0.87”	0.62”	0.68”
037N-250075-POP	2.50”	3/8 NPT	1.12”	0.75”	0.87”
050N-300087-POP	3.00”	1/2 NPT	1.25”	0.87”	0.93”
050N-350087-POP	3.50”	1/2 NPT	1.25”	0.87”	0.93”
050N-400087-POP	4.00”	1/2 NPT	1.25”	0.87”	0.93”
050N-450087-POP	4.50”	1/2 NPT	1.25”	0.87”	0.93”
075N-550100-POP	5.50”	3/4 NPT	1.37”	1.00”	1.06”

PORT SAE					
PART NUMBER	CYLINDER O.D	THREAD	A	B	C
04S-200062-POP	2.00”	SAE 4	0.75”	0.62”	0.68”
06S-250075-POP	2.50”	SAE 6	1.00”	0.75”	0.81”
08S-300093-POP	3.00”	SAE 8	1.12”	0.93”	1.00”
08S-350093-POP	3.50”	SAE 8	1.12”	0.93”	1.00”
08S-400093-POP	4.00”	SAE 8	1.12”	0.93”	1.00”
08S-450093-POP	4.50”	SAE 8	1.12”	0.93”	1.00”
12S-550100-POP	5.50”	SAE 12	1.50”	1.00”	1.06”

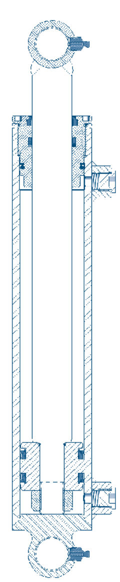
MATERIAL : C1020 STEEL
MAXIMUM OPERATING PRESSURE : 3000 psi (SAFETY FACTOR = 2)

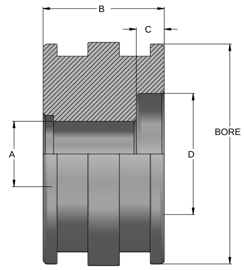


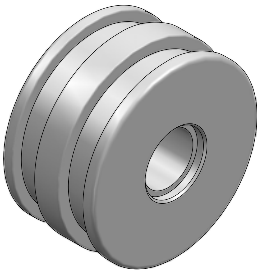


PORT							
PART NUMBER	CYLINDER O.D	THREAD	A	B	C	D	E
025N-200112-90POP	2.00”	1/4 NPT	1.12”	0.37”	0.43”	1.12”	1.25”
037N-250125-90POP	2.50”	3/8 NPT	1.25”	0.43”	0.50”	1.25”	1.37”
050N-300150-90POP	3.00”	1/2 NPT	1.62”	0.50”	0.62”	1.50”	1.68”
050N-350150-90POP	3.50”	1/2 NPT	1.62”	0.50”	0.62”	1.50”	1.62”
050N-400150-90POP	4.00”	1/2 NPT	1.62”	0.50”	0.62”	1.50”	1.62”
050N-450150-90POP	4.50”	1/2 NPT	1.62”	0.50”	0.62”	1.50”	1.62”
075N-550200-90POP	5.50”	3/4 NPT	2.12”	0.62”	0.87”	2.00”	2.18”
04S-200112-90POP	2.00”	SAE 4	1.12”	0.37”	0.43”	1.12”	1.25”
06S-250125-90POP	2.50”	SAE 6	1.25”	0.43”	0.50”	1.25”	1.37”
08S-300150-90POP	3.00”	SAE 8	1.62”	0.50”	0.62”	1.50”	1.68”
08S-350150-90POP	3.50”	SAE 8	1.62”	0.50”	0.62”	1.50”	1.62”
08S-400150-90POP	4.00”	SAE 8	1.62”	0.50”	0.62”	1.50”	1.62”
08S-450150-90POP	4.50”	SAE 8	1.62”	0.50”	0.62”	1.50”	1.62”
12S-550200-90POP	5.50”	SAE 12	2.12”	0.62”	0.81”	2.00”	2.18”

MATERIAL : C1020 STEEL
MAXIMUM OPERATING PRESSURE : 3000 psi (SAFETY FACTOR = 2)

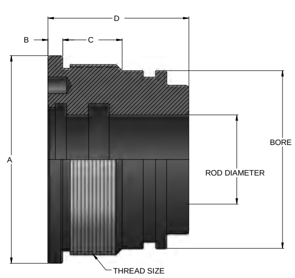






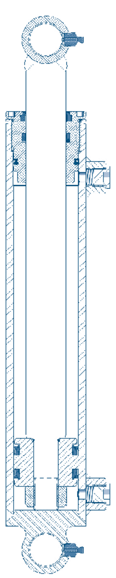
PISTON						
PART NUMBER	**BORE**	**ROD DIAMETER**	**A**	**B**	**C**	**D**
ST-15062-PIP	1.50”	1.00”	0.62”	1.50”	NONE	NONE
ST-20075-PIP	2.00”	1.25”	0.75”	1.50”	NONE	NONE
ST-25087-PIP	2.50”	1.50”	0.87”	1.62”	0.37”	1.62”
ST-30087-PIP	3.00”	1.50”	0.87”	1.62”	0.37”	1.62”
ST-35100-PIP	3.50”	1.75”	1.00”	1.62”	0.43”	1.87”
ST-40125-PIP	4.00”	2.00”	1.25”	1.75”	0.68”	2.62”
ST-50150-PIP	5.00”	2.50”	1.50”	2.50”	0.62”	3.25”
ST-60200-PIP	6.00”	3.00”	2.00”	2.50”	0.62”	3.62”

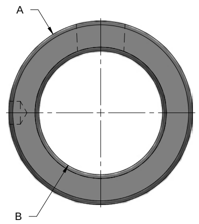
MATERIAL : 65-45-12 DUCTILE CAST IRON
PISTON FOR 5" & 6" BORE COME WITH A WEAR RING GROOVE

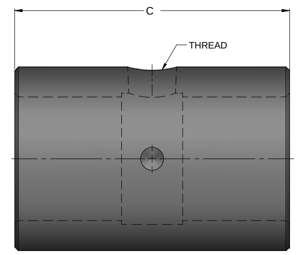


GLAND							
PART NUMBER	**BORE**	**ROD DIAMETER**	**THREAD SIZE**	**A**	**B**	**C**	**D**
ST-15100-GLP	1.50”	1.00”	1.700-12 UN	2.00”	0.25”	0.75”	2.00”
ST-20125-GLP	2.00”	1.25”	2.200-12 UN	2.50”	0.25”	0.87”	2.25”
ST-25150-GLP	2.50”	1.50”	2.700-12 UN	3.00”	0.25”	1.00”	2.37”
ST-30150-GLP	3.00”	1.50”	3.200-12 UN	3.50”	0.25”	1.00”	2.37”
ST-35175-GLP	3.50”	1.75”	3.700-12 UN	4.00”	0.25”	1.00”	2.37”
ST-40200-GLP	4.00”	2.00”	4.200-12 UN	4.50”	0.25”	1.00”	2.37”
ST-50250-GLP	5.00”	2.50”	5.200-12 UN	5.50”	0.31”	1.37”	3.00”
ST-60300-GLP	6.00”	3.00”	6.250-12 UN	6.75”	0.50”	1.56”	3.50”

MATERIAL : 65-45-12 DUCTILE CAST IRON
GLAND FOR 5" & 6" BORE COMES WITH A WEAR RING GROOVE

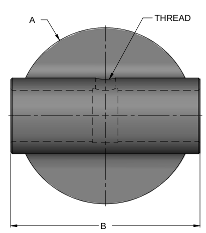


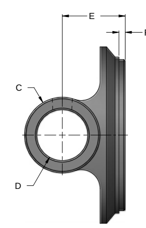




BUSHING						
PART NUMBER	A	B	C	THREAD	MAXIMUM PUSH (LBS)	MAXIMUM PULL (LBS)
BU-075200-BUP	1.25"	0.76"	2.00"	1/8 NPT	5300	5300
BU-100225-BUP	1.50"	1.01"	2.25"	1/8 NPT	21200	21200
BU-125225-BUP	2.00"	1.26"	2.25"	1/8 NPT	29000	29000
BU-150250-BUP	2.25"	1.51"	2.50"	1/8 NPT	37700	37700
BU-200325-BUP*	3.00"	*2.01"	3.25"	1/8 NPT	59000	50000

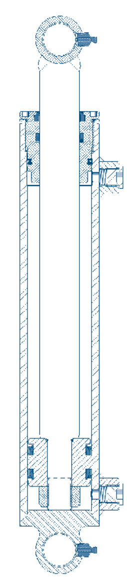
* COME WITH A SLEEVE TO PASS FROM 2" TO 1 3/4" PIN DIAMETER
MAXIMUM PUSHING / PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2
MATERIAL : C1020 STEEL

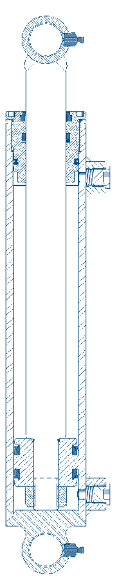


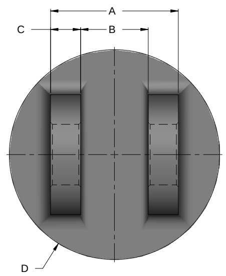


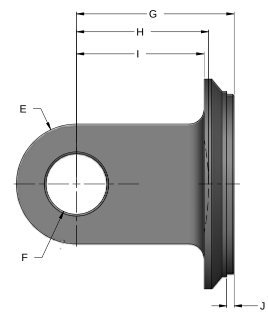
END CAP BUSHING										
PART NUMBER	BORE	THREAD	A	B	C	D	E	F	MAXIMUM PUSH (LBS)	MAXIMUM PULL (LBS)
BU-15075-CAP	1.50"	1/8 NPT	2.00"	2.25"	1.25"	0.76"	1.12"	0.12"	5300	5300
BU-20100-CAP	2.00"	1/8 NPT	2.50"	2.75"	1.50"	1.01"	1.25"	0.12"	9500	9500
BU-25100-CAP	2.50"	1/8 NPT	3.00"	3.25"	1.50"	1.01"	1.25"	0.12"	14700	14700
BU-30100-CAP	3.00"	1/8 NPT	3.50"	3.75"	1.50"	1.01"	1.25"	0.12"	21200	21200
BU-35125-CAP	3.50"	1/8 NPT	4.00"	4.25"	2.00"	1.26"	1.50"	0.12"	29000	29000
BU-40150-CAP	4.00"	1/8 NPT	4.50"	4.75"	2.25"	1.51"	1.62"	0.12"	37700	37700
BU-50200-CAP*	5.00"	1/8 NPT	5.50"	5.75"	3.00"	2.01"	2.25"	0.25"	59000	50000

* COME WITH A SLEEVE TO PASS FROM 2" TO 1 3/4" PIN DIAMETER
MAXIMUM PUSHING / PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2
MATERIAL : C1045 CAST STEEL



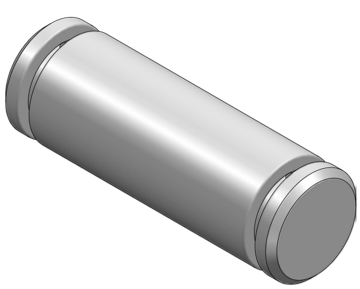


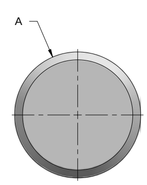


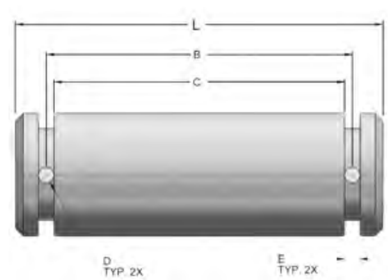


END CAP CLEVIS													
PART NUMBER	BORE	A	B	C	D	E	F	G	H	I	J	MAXIMUM PUSH (LBS)	MAXIMUM PULL (LBS)
CL-15075-CAP	1.50”	1.62”	0.87”	0.37”	2.00”	1.50”	0.76”	1.87”	none	1.37”	0.12”	5300	5300
CL-20100-CAP	2.00”	2.12”	1.12”	0.50”	2.50”	2.00”	1.01”	2.62”	none	2.12”	0.12”	9500	9500
CL-25100-CAP	2.50”	2.12”	1.12”	0.50”	3.00”	2.00”	1.01”	2.62”	none	2.12”	0.12”	14750	14700
CL-30100-CAP	3.00”	2.12”	1.12”	0.50”	3.50”	2.00”	1.01”	2.62”	none	2.12”	0.12”	22500	22500
CL-35100-CAP	3.50”	2.37”	1.12”	0.62”	4.00”	2.00”	1.01”	2.62”	2.12”	2.00”	0.12”	28100	28100
CL-40100-CAP	4.00”	2.37”	1.12”	0.62”	4.50”	2.00”	1.01”	2.50”	2.00”	1.75”	0.12”	28100	28100
CL-50150-CAP	5.00”	3.12”	1.62”	0.75”	5.50”	3.00”	1.51”	3.12”	none	2.25”	0.25”	50600	50600

MATERIAL : C1045 CAST STEEL
MAXIMUM PUSHING / PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2







PIN							
PART NO	A	B	C	D & E	L	MAXIMUM LOAD (LBS)	FOR MODEL
075175-PNP	0.750"	1.87"	1.75"	0.12"	2.38"	15700	CL15, TCL15 CAP
075212-PNP	0.750"	2.25"	2.12"	0.12"	2.62"	15700	TCL15 FRONT CLEVIS
100237-PNP	1.000"	2.50"	2.37"	0.12"	3.00"	28100	CL20, CL25, CL30
100262-PNP	1.000"	2.75"	2.62"	0.12"	3.25"	28100	CL35, CL40
100275-PNP	1.000"	2.87"	2.75"	0.12"	3.28"	28100	TR2.5, TR3-20/25/30
100287-PNP	1.000"	3.00"	2.87"	0.12"	3.63"	28100	TCL, TR3-35/40
125350-PNP	1.250"	3.62"	3,50"	0.12"	4.12"	50500	TRxx-xx16-ASAE, TR3-50
150337-PNP	1.500"	3.56"	3.37"	0.18"	4.12"	63100	CL50

MATERIAL : C1045 STEEL ZINC PLATED
MAXIMUM PUSHING / PULLING FORCE ARE BASED ON A SUGGESTED MINIMUM SAFETY FACTOR OF 2

BU AND CL SERIES

PART NUMBER	DESCRIPTION
SK-BU-CL151000	1-1/2” BORE & 1” ROD
SK-BU-CL201250	2” BORE & 1-1/4” ROD
SK-BU-CL251500	2-1/2” BORE & 1-1/2” ROD
SK-BU-CL301500	3” BORE & 1-1/2” ROD
SK-BU-CL351750	3-1/2” BORE & 1-3/4” ROD
SK-BU-CL402000	4” BORE & 2” ROD
SK-BU-CL502500	5” BORE & 2-1/2” ROD

WT3 SERIES

PART NUMBER	DESCRIPTION
SK-WT3-151000	1-1/2” BORE & 1” ROD
SK-WT3-201250	2” BORE & 1-1/4” ROD
SK-WT3-251375	2-1/2” BORE & 1-3/8” ROD
SK-WT3-301500	3” BORE & 1-1/2” ROD
SK-WT3-351750	3-1/2” BORE & 1-3/4” ROD
SK-WT3-402000	4” BORE & 2” ROD

TCL SERIES

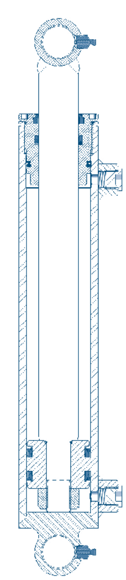
PART NUMBER	DESCRIPTION
SK-TCL-151000	1-1/2” BORE & 1” ROD
SK-TCL-201125	2” BORE & 1-1/8” ROD
SK-TCL-251250	2-1/2” BORE & 1-1/4” ROD
SK-TCL-301500	3” BORE & 1-1/2” ROD
SK-TCL-351750	3-1/2” BORE & 1-3/4” ROD
SK-TCL-402000	4” BORE & 2” ROD

TR2.5 SERIES

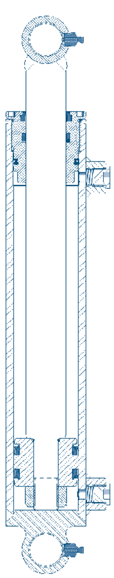
PART NUMBER	DESCRIPTION
SK-TR2.5-201125-LA4	2” BORE & 1-1/8” ROD
SK-TR2.5-251125-LA4	2-1/2” BORE & 1-1/8” ROD
SK-TR2.5-251250-LA4	2-1/2” BORE & 1-1/4” ROD
SK-TR2.5-301250-LA4	3” BORE & 1-1/4” ROD
SK-TR2.5-301500-LA4	3” BORE & 1-1/2” ROD
SK-TR2.5-351250-LA4	3-1/2” BORE & 1-1/4” ROD
SK-TR2.5-351500-LA4	3-1/2” BORE & 1-1/2” ROD
SK-TR2.5-401250-LA4	4” BORE & 1-1/4” ROD
SK-TR2.5-401500-LA4	4” BORE & 1-1/2” ROD
SK-TR2.5-401750-LA4	4” BORE & 1-3/4” ROD
SK-TR2.5-402000-LA4	4” BORE & 2” ROD

TR3 SERIES

PART NUMBER	DESCRIPTION
SK-TR3-201125	2” BORE & 1-1/8” ROD
SK-TR3-251250	2-1/2” BORE & 1-1/4” ROD
SK-TR3-301375	3” BORE & 1-3/8” ROD
SK-TR3-351375	3-1/2” BORE & 1-3/8” ROD
SK-TR3-401750	4” BORE & 1-3/4” ROD
SK-TR3-502000	5” BORE & 2” ROD



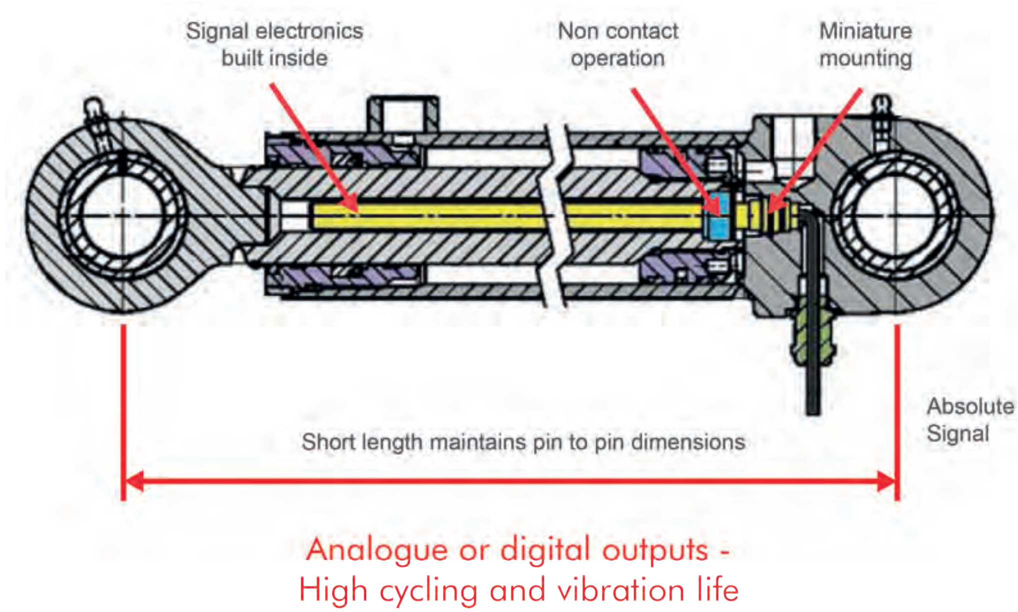
HYDRAULIC CYLINDERS



NEW
LINEAR TRANSDUCER EQUIPPED CYLINDER

HYDRO CUSTOM SERIES ARE DESIGNED SPECIFICALLY FOR MOBILE HYDRAULIC APPLICATION :

- LIVE CYLINDER POSITIONING FEEDBACK.
- ADAPTABLE TO THE NEW MECHATRONIC ENGINEERING.
- AVAILABLE WITH INTERNAL, EXTERNAL, AND PARALLEL DESIGN.
- HIGH VIBRATION/SHOCK RESISTANCE.
- PARALLEL SERIES CAN BE INTEGRATED TO EXISTING SYSTEMS.

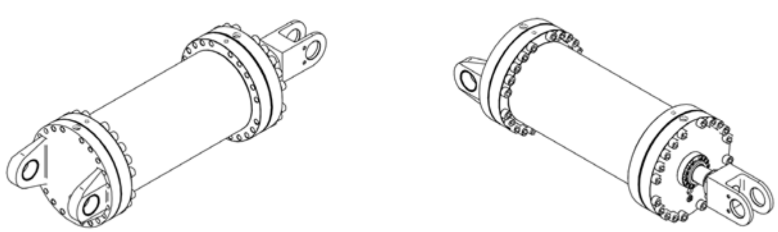


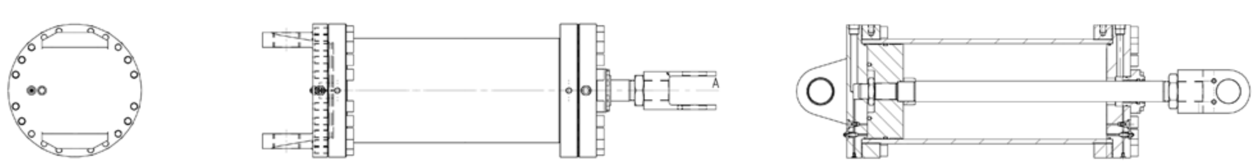
DESIGN, CONCEPTION, MANUFACTURING & QUALITY CONTROL

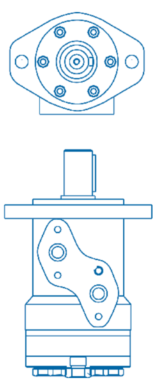
HYDROLICO INC. IS YOUR PARTNER TO MANUFACTURE HIGH-QUALITY HYDRAULIC CYLINDER FROM; 2 1/2 INCH. TO MORE THAN 25'' BORE AND OUR MACHINERY CAN DO SUCH AS 24 FT. LONG CYLINDER.

WITH MORE THAN 25 YRS, IN BUSINESS AND A BRAND-NEW FACILITY OF 70,000 SFT. OF MANUFACTURING HYDROLICO INC. DIVISION CAN OFFER YOU MANY BENEFITS:

- AN EXPERIENCED AND QUALIFIED TEAM AS WELL AS ITS LEADING-EDGE PRODUCTION EQUIPMENT.
- EXPERIENCED ADVISORS IN DEVELOPMENT AND DESIGN.
- INNOVATIVE MANUFACTURING SOLUTIONS TAILORED TO THE NEEDS OF THE CLIENTS.
- CUSTOMIZED MANUFACTURING SOLUTIONS ADAPTED TO THE SPEED, QUANTITY AND DESIRED PRICE.
- A VARIETY OF SPECIALIZED SERVICES THAT CAN BE CUSTOMIZED TO YOUR NEEDS, INCLUDING VALIDATION OF 3D PROTOTYPES, REPEATED RIGOROUS TESTING, INSTALLATION AND ASSEMBLY IN A CONTAMINANT-FREE ENVIRONMENT.







THE HYDRAULIC MOTORS HAVE AN ADVANTAGE OF SMALL VOLUME, HIGH EFFICIENCY, LOW NOISE, ETC. AND CAN BE USED IN A WIDE FIELD OF APPLICATION SUCH AS: CONSTRUCTION, AGRICULTURAL, PLASTIC, MINING, MATERIAL LIFTING, FORESTRY, LAWN AND TURF, MACHINE TOOLS AND STATIONARY, MARINE, ETC.

WWW.HCHYDR**OCUSTOM**.COM

BMM
UP TO 1950 RPM
UP TO 407 LBF.IN

BMM IS A MINI-MOTOR WITH HIGH SPEED CAPABILITIES.

p.39

BM1
UP TO 879 RPM
UP TO 3845 LBF.IN

BM1 IS A SMALL VOLUME, SPOOL VALVE TYPE MOTOR, WITH OPTIONAL SIDE LOAD BEARING DESIGN.
AVAILABLE IN H (EATON) AND S (DANFOSS) PORTS.

p.40

BM2 / BM2W
UP TO 755 RPM
UP TO 5613 LBF.IN

BM2 IS A MEDIUM VOLUME, SPOOL VALVE TYPE MOTOR, WITH OPTIONAL SIDE LOAD BEARING DESIGN. AVAILABLE IN H (EATON) AND S (DANFOSS) PORTS.

BM2W WHEEL MOTOR IS A RECESSED MOUNTING FLANGE, WITH RADIAL BEARING DESIGN, WHICH CAN BEAR A GREATER LOAD.

p.42

BME
UP TO 336 RPM
UP TO 9824 LBF.IN

BME MOTOR HAS ADVANCED GEROLER GEAR SET DESIGN,THEY ARE SUITED FOR HIGH PRESSURE HIGH EFFICIENCY,LOW SPEED APPLICATIONS.IT CAN KEEP HIGH VOLUME EFFICIENCY,LONG WORKING LIFE .

p.44

BM5 / BM5S
UP TO 799 RPM
UP TO 6370 LBF.IN

BM5 IS A LARGE VOLUME, DISC VALVE, HIGH PRESSURE MOTOR, WITH RADIAL BALL-BEARINGS DESIGN AND CAN BEAR GREATER LOAD.

BM5S BEARINGLESS MOTOR IS A SHORT MOTOR DESIGN WITHOUT BEARINGS, FOR GEARBOX ASSEMBLY APPLICATIONS.

p.46

BMT

UP TO 12958 LBF.IN

BMT IS OUR LARGEST VOLUME DISC VALVE HIGH PRESSURE MOTOR WITH RADIAL BALL-BEARINGS DESIGN WHICH CAN BEAR GREATER LOAD AND IS SHORTER THAN OUR **BM6**.
**SEE MOTOR CATALOGUE*

INFORMATION AVAILABLE UP ON REQUEST

BM6 / BM6S
UP TO 775 RPM
UP TO 3852 LBF.IN

BM6 IS A LARGE VOLUME, DISC VALVE, HIGH PRESSURE MOTOR, WITH RADIAL BALL-BEARINGS DESIGN AND CAN BEAR GREATER LOAD, AND HAS HIGHER TORQUE CAPABILITIES THAN OUR **BM5**.

BM6S BEARINGLESS MOTOR IS A SHORT MOTOR DESIGN WITHOUT BEARINGS, FOR GEARBOX ASSEMBLY APPLICATIONS.
**SEE MOTOR CATALOGUE*

INFORMATION AVAILABLE UP ON REQUEST

BMV
UP TO 17813 LBF.IN

BMV IS A DISC VALVE, HIGH PRESSURE MOTOR, WITH RADIAL BALL-BEARINGS DESIGN AND EFFICIENT PERFORMANCE WHICH CAN BEAR GREATER LOAD THAN BMT. ITS FIGURATION IS BIGGER THAN **BMT**.
**SEE MOTOR CATALOGUE*

INFORMATION AVAILABLE UP ON REQUEST

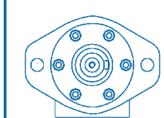
HIGH SPEED MOTORS BMM SERIE

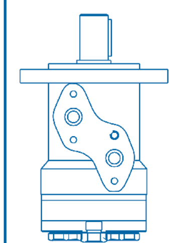
BMM SERIES MOTOR IS A MINI-MOTOR WITH HIGH SPEED, VERY COMPACT DESIGN, SPOOL VALVE, ECONOMICAL TYPE MOTOR.

CHARACTERISTIC FEATURES

- COMPACT DESIGN OF SPOOL AND GEAR SET, WHICH PROVIDE MINI VOLUME, HIGH POWER DENSITY AND LOW WEIGHT
- CREDIBLE DESIGN FOR SHAFT SEAL, WHICH CAN BEAR HIGH PRESSURE AND BE USED IN PARALLEL OR IN SERIES.
- DIRECTION OF SHAFT ROTATION AND SPEED CAN BE CONTROLLED EASILY AND SMOOTHLY

BMM

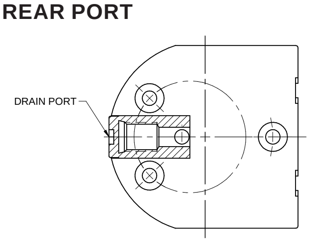


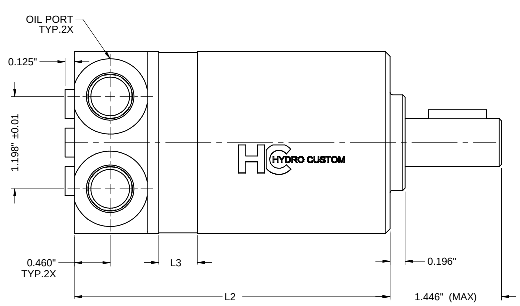


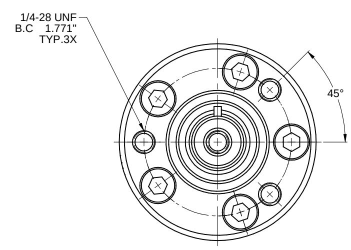
DISPLACEMENT cm^3		8.2	12.9	19.9	31.6	50,3
REVOLUTION in^3		0.5	0.79	1.21	1.93	3.0
FLOW (GPM)	CONT.	4.2	5.2	5.2	5.2	5.2
	INT.	5.2	6.6	6.6	6.6	6.6
SPEED (RPM)	CONT.	1950	1550	1000	630	400
	INT.	2450	1940	1250	800	500
PRESSURE (PSI)	CONT.	1450	1450	1450	1450	1015
	INT.	2030	2030	2030	2030	2030
TORQUE (LBF.IN)	CONT.	97	141	221	354	407
	INT.	132	203	309	504	778
POWER (HP)	CONT.	3.38	4.22	4.22	2.96	2.96
	INT.	5.92	8.29	8.29	7.1	5.92
LENGTHS	L	4.09	4.17	4.29	4.45	4.80
	L1	4.13	4.21	4.33	4.53	4.84
	L2	0.14	0.22	0.34	0.53	0.85

OTHER SHAFTS & MOUNTINGS AVAILABLE UPON REQUEST

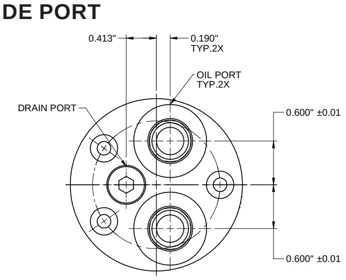
REAR PORT

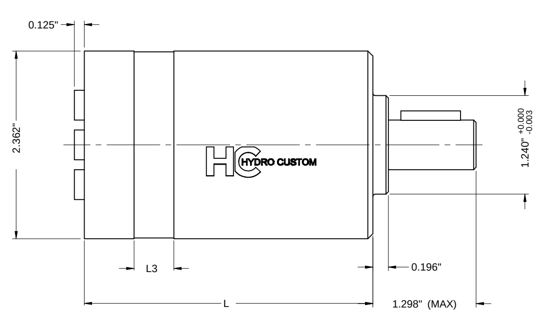






SIDE PORT

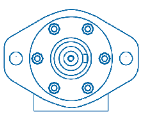


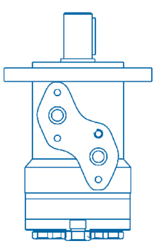


PART NUMBERS

PORT CONFIGURATION	8.2	12.9	19.9	31.6	50
	0.5	0.79	1.21	1.93	3.0
SIDE PORT	301-0050	301-0051	301-0052	301-0053	301-0055
REAR PORT	301-0060	301-0061	301-0062	301-0063	301-0065

Hydro Custom





BM1 SERIES MOTOR IS A SMALL VOLUME, SPOOL VALVE GEROLOR GEAR SET, ECONOMICAL TYPE MOTOR

CHARACTERISTIC FEATURES

- COMPACT DESIGN OF SPOOL AND GEAR SET, WHICH PROVIDE SMALL VOLUME, HIGH POWER AND LOW WEIGHT
- DIRECTION OF SHAFT ROTATION AND SPEED CAN BE CONTROLLED EASILY AND SMOOTHLY
- BEST COMBINATION OF EFFICIENCY AND ECONOMY IN MEDIUM LOAD APPLICATIONS

BM1

MAIN SPECIFICATIONS

DISPLACEMENT cm^3		50	80	100	125	160	200	250	315	400
REVOLUTION in^3		3.0	4.8	6.1	7.6	9.7	12.2	15.2	19.2	24.4
FLOW (GPM)	CONT.	15	15	15	15	15	15	15	15	15
	INT.	20	20	20	20	20	20	20	20	20
SPEED (RPM)	CONT.	716	750	550	450	360	280	220	189	140
	INT.	955	900	673	560	430	350	270	236	180
PRESSURE (PSI)	CONT.	2030	2030	2030	2030	2030	2030	1595	1305	1015
	INT.	2537	2537	2537	2537	2537	2537	2030	2030	1522
	PEAK	3262	3262	3262	3262	3262	3262	2610	2320	2030
TORQUE (LBF.IN)	CONT.	734	1140	1423	1812	2166	2519	3182	3589	3845
	INT.	955	1503	1874	2343	3014	3448	4022	4464	4694
	PEAK	1014	1630	1990	2681	3441	3967	4113	4885	4922
POWER (HP)	CONT.	12.67	16.89	16.89	16.89	18.94	14.88	14.88	13.53	11.48
	INT.	16.73	22.31	22.31	22.31	23.68	20.3	18.94	16.91	16.89
LENGTHS	L	0.35	0.57	0.70	0.91	1.14	1.46	1.81	2.24	2.84
	L1	5.63	5.81	5.95	6.14	6.38	6.69	7.07	7.50	8.07
	L2	5.83	6	6.14	6.34	6.58	6.89	7.26	7.70	8.27

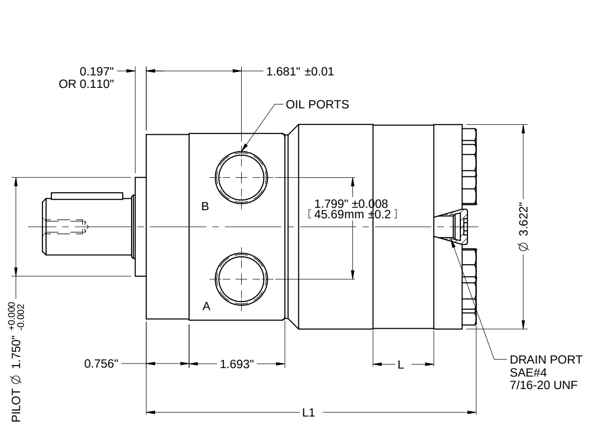
PART NUMBERS

PORT CONFIGU-RATION	FLANGE	SHAFT	PORT SIZE	50	80	100	125	160	200	250	315	400
				3.0	4.8	6.1	7.6	9.7	12.2	15.2	19.2	24.4
TYPE H SIDELOAD BEARING INCLUDED	2 BOLT	1" STRAIGHT	SAE-10	316-0400H	316-0402H	316-0403H	316-0409H	316-0404H	316-0405H	316-0406H	316-0408H	316-0407H
			1/2 NPT	316-0390H	316-0392H	316-0393H	316-0399H	316-0394H	316-0395H	316-0396H	316-0398H	316-0397H
		1"-6T SPLINED	SAE-10	316-0800H	316-0802H	316-0803H	316-0809H	316-0804H	316-0805H	316-0806H	316-0808H	316-0807H
			1/2 NPT	316-0820H	316-0822H	316-0823H	316-0829H	316-0824H	316-0825H	316-0826H	316-0828H	316-0827H
	4 BOLT	1" STRAIGHT	SAE-10	316-0500H	316-0502H	316-0503H	316-0509H	316-0504H	316-0505H	316-0506H	316-0508H	316-0507H
			1/2 NPT	316-0420H	316-0422H	316-0423H	316-0429H	316-0424H	316-0425H	316-0426H	316-0428H	316-0427H
		1"-6T SPLINED	SAE-10	316-0900H	316-0902H	316-0903H	316-0909H	316-0904H	316-0905H	316-0906H	316-0908H	316-0907H
			1/2 NPT	316-0920H	316-0922H	316-0923H	316-0929H	316-0924H	316-0925H	316-0926H	316-0928H	316-0927H
TYPE S	2 BOLT	1" STRAIGHT	SAE-10	313-0400	313-0402	313-0403	313-0409	313-0404	313-0405	313-0406	313-0408	313-0407
			1/2 NPT	313-0390	313-0392	313-0393	313-0399	313-0394	313-0395	313-0396	313-0398	313-0397
		1"-6T SPLINED	SAE-10	313-0800	313-0802	313-0803	313-0809	313-0804	313-0805	313-0806	313-0808	313-0807
			1/2 NPT	313-0800	313-0802	313-0803	313-0809	313-0804	313-0805	313-0806	313-0808	313-0807
	4 BOLT	1" STRAIGHT	SAE-10	313-0500	313-0502	313-0503	313-0509	313-0504	313-0505	313-0506	313-0508	313-0507
			1/2 NPT	313-0420	313-0422	313-0423	313-0429	313-0424	313-0425	313-0426	313-0428	313-0427
		1"-6T SPLINED	SAE-10	313-0900	313-0902	313-0903	313-0909	313-0904	313-0905	313-0906	313-0908	313-0907
			1/2 NPT	313-0920	313-0922	313-0923	313-0929	313-0924	313-0925	313-0926	313-0928	313-0927

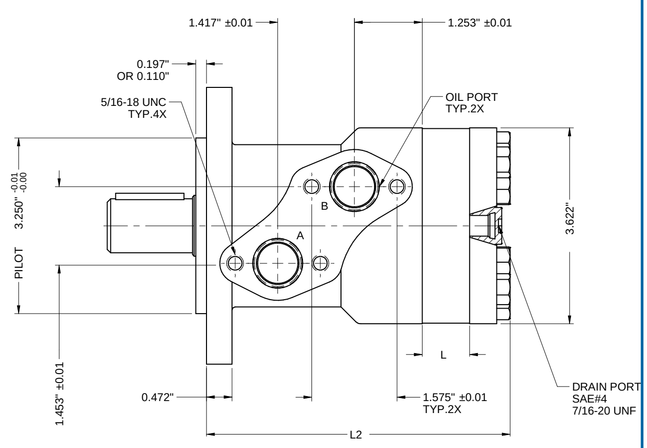
ALSO AVAILABLE:
- OTHER SHAFT DIMENSION
- OTHER MOUNTING FLANGES

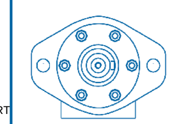
PORTS CONFIGURATION

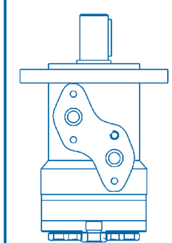
H TYPE



S TYPE



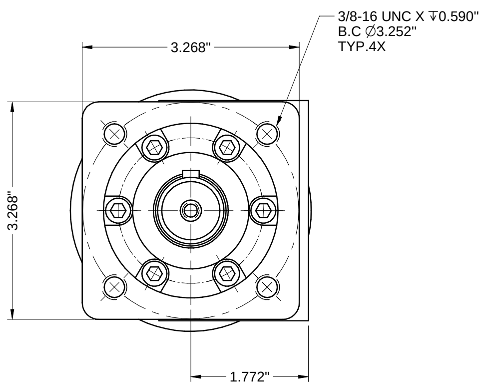




MOUNTING FLANGES

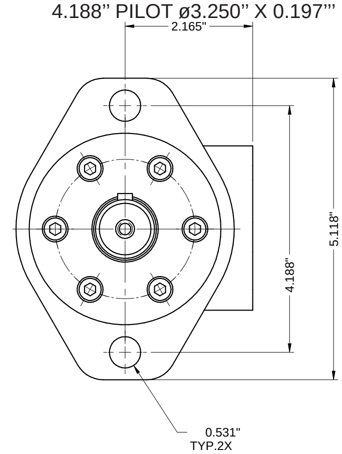
4 BOLT MOUNTING

SQUARE FLANGE
4X 3/8-16 UNC BOLT ON Ø3.25"



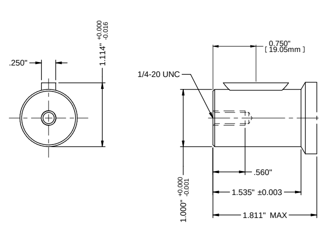
2 BOLT MOUNTING

2 BOLTS FLANGE, ø0.531"X2 BOLT CENTER SPACE
4.188" PILOT ø3.250" X 0.197"'



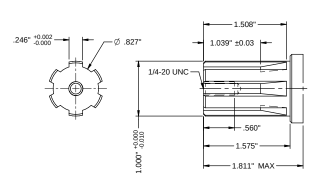
SHAFT TYPE

1" STRAIGHT KEY

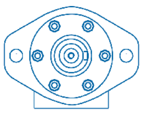


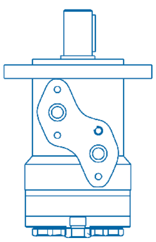
CYLINDER SHAFT: 1" X 1.535"
WOODRUFF KEY: 1" X 0.250"
LINK THREAD: 1/4-20 UNC

1"-6T SPLINED



SPLINE SHAFT:
0.996" X 1.535"
0.996" X 0.846" X 0.246" 6 TEETH
LINK THREAD: 1/4-20 UNC





BM2 / BM2W SERIES MOTOR IS A MEDIUM, SPOOL VALVE TYPE MOTOR, THAT CAN BEAR HIGHER PRESSURE THAN BM1.

CHARACTERISTIC FEATURES

- IT ADOPTS THE GEROLOR DESIGN. HAS HIGHER EFFICIENCY THAN OUR BM1 SERIES.
- CREDIBLE DESIGN FOR SHAFT SEAL, WHICH CAN BEAR HIGH PRESSURE AND CAN BE USED IN PARALLEL OR IN SERIES APPLICATION.
- DIRECTION OF SHAFT SPEED CAN BE CONTROLLED EASILY AND SMOOTHLY.
- BEST EFFICIENCY AND ECONOMY IN MEDIUM LOAD APPLICATIONS.

BM2

BM2W

MAIN SPECIFICATIONS

DISPLACEMENT cm^3		50	63	80	100	125	160	200	250	315	400	500
REVOLUTION in^3		3.0	3.8	4.8	6.1	7.6	9.7	12.2	15.2	19.2	24.4	30.4
FLOW (GPM)	CONT.	10.5	10.5	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
	INT.	13.2	13.2	20	20	20	20	20	20	20	20	20
SPEED (RPM)	CONT.	755	630	750	600	475	375	300	240	190	160	110
	INT.	970	790	940	750	600	470	375	300	240	200	128
PRESSURE (PSI)	CONT.	2030	2030	2030	2030	2030	2392	1885	1595	1235	1235	1160
	INT.	2537	2537	2900	2900	2900	2900	2900	2900	1667	1667	1305
TORQUE (LBF.IN)	CONT.	884	1105	1414	1759	2210	2829	2917	3403	3403	4287	5613
	INT.	1105	1388	1680	2122	2581	3359	3960	4844	4880	5923	6674
POWER (HP)	CONT.	13.02	4.65	21.3	21.31	21.31	21.31	18.27	16.75	13.7	13.7	13.7
	INT.	17.78	17.78	29.63	29.63	29.63	29.63	29.61	29.61	22.84	22.84	21.99
LENGTHS	L	0.35	0.45	0.57	0.70	0.91	1.14	1.46	1.81	2.24	2.84	3.54
	L1	5.75	5.84	5.97	6.09	6.30	6.54	6.85	7.21	7.64	8.23	8.94
	L2	5.95	6.04	6.16	6.29	6.50	6.73	7.05	7.40	7.84	8.43	9.134
	L3	6.18	6.30	6.42	6.54	6.73	6.99	7.28	7.64	8.07	8.66	9.37

NOTES 1. CONTINUOUS DATA: THE MAX. VALUE OF OPERATING MOTOR CONTINUOUSLY.
2. INTERMITTENT DATA: THE MAX. VALUE OF OPERATING MOTOR IS 10 % PER MINUTE.
3. A SIMULTANEOUS MAX. rpm AND MAX. PRESSURE IS NOT RECOMMENDED.
4. OPTIMUM OPERATING SITUATION SHOULD BE AT THE 1/3~2/3 OF THE CONTINUOUS OPERATION.

PART NUMBERS

FLANGE	SHAFT	PORT SIZE	50	80	100	125	160	200	250	315	400	500
			3,0	4,8	6,1	7,6	9,7	12,2	15,2	19,2	24,4	30,4
2 BOLT	1" KEYED	SAE-10	322-0300	322-0302	322-0303	322-030A	322-0304	322-0305	322-0306	322-0307	322-0308	322-0309
		1/2NPT	322-0180	322-0182	322-0183	322-018A	322-0184	322-0185	322-0186	322-0187	322-0188	322-0189
4 BOLT	1" KEYED	SAE-10	322-0250	322-0252	322-0253	322-025A	322-0254	322-0255	322-0256	322-0257	322-0258	322-0259
		1/2NPT	322-0390	322-0392	322-0393	322-039A	322-0394	322-0395	322-0396	322-0397	322-0398	322-0399
WHEEL MOTOR	11/4" TAPER	SAE-10	328-0420F	328-0422F	328-0423F	328-042AF	328-0424F	328-0425F	328-0426F	328-0427F	328-0428F	328-0429F

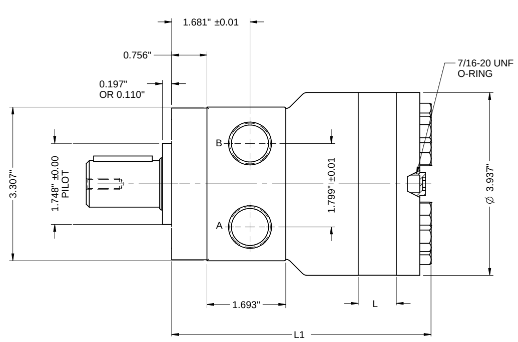
ALSO AVAILABLE:

- OTHER SHAFT DIMENSION
- OTHER MOUNTING FLANGES
- SIDE LOAD BEARING

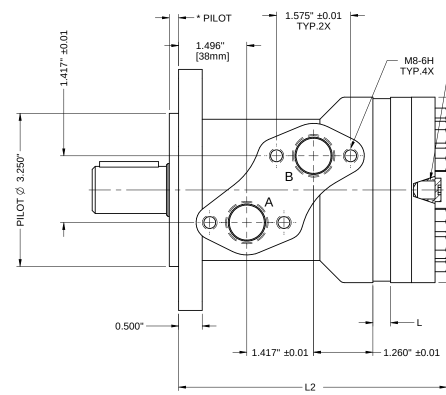
HC Hydro Custom

PORT CONFIGURATION

H TYPE



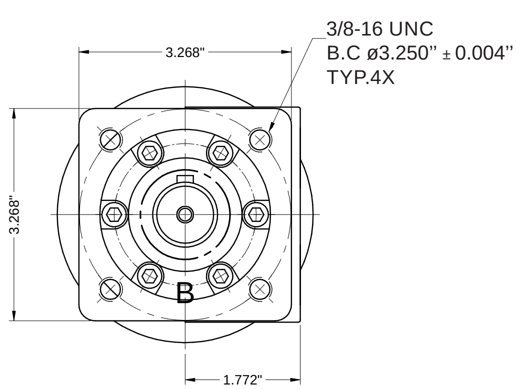
S TYPE



MOUNTING FLANGES

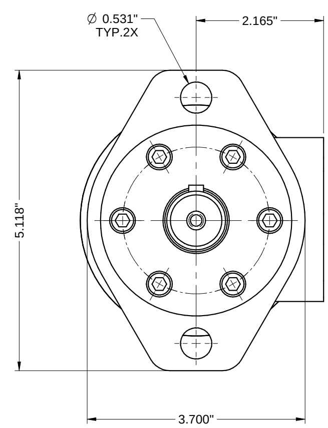
4 BOLT

SQUARE FLANGE
4X 3/8-16 UNC BOLT ON ø3.25"



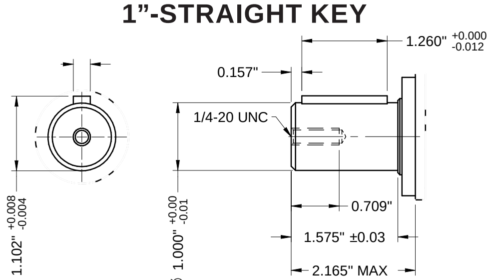
2 BOLT

2 BOLTS FLANGE, ø0.531"X2 BOLT CENTER SPACE 4.188"
PILOT ø3.250" X 0.197"



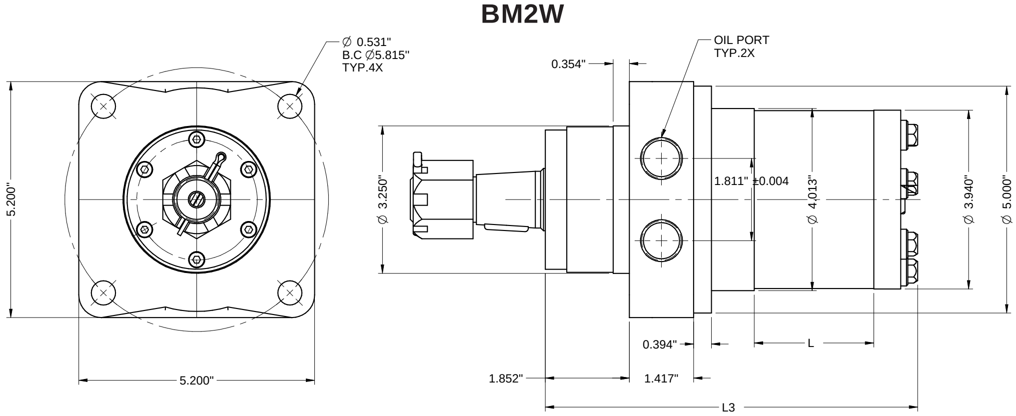
SHAFT TYPE

1"-STRAIGHT KEY

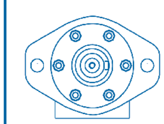


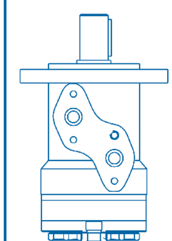
1 1/4" TAPERED

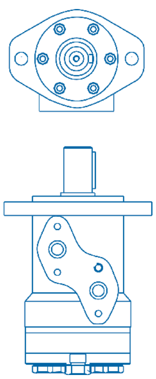
BM2W



MOTORS



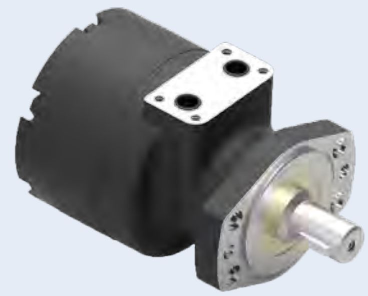




BME SERIES MOTOR HAS ADVANCED GEROLER GEAR SET DESIGN,THEY ARE SUITED FOR HIGH PRESSURE HIGH EFFICIENCY,LOW SPEED APPLICATIONS. IT CAN KEEP HIGH VOLUME EFFICIENCY,LONG WORKING LIFE.

CHARACTERISTIC FEATURES

- ADVANCED GEROLER GEAR SET DESIGN, LOW PRESSURE OF START-UP, HIGH EFFICIENCY.
- HIGH PRESSURE APPLICATIONS, HIGH TORQUE.HAS NEEDLE BEARINGS DESIGN, IT CAN BEAR HIGH AXIAL AND RADIAL FORCES.
- ADVANCE HIGH SPEED DISTRIBUTION FLOW DESIGN, AUTOMATICALLY COMPENSATE IN OPERATING, HIGH VOLUME EFFICIENCY, RUN SMOOTHLY AT LOW SPEED.

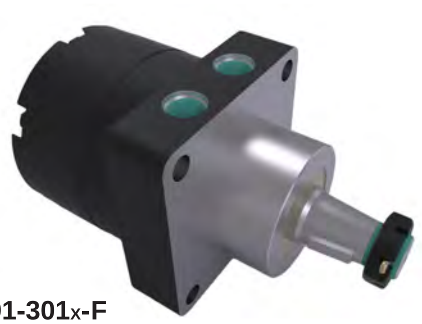


MAIN SPECIFICATIONS

DISPLACEMENT cm^3		125	160	200	230	250	300	350	375	475	540	750
REVOLUTION in^3												
FLOW (GPM)	CONT.	11.89	15.85	18.49	18.49	19.81	21.13	21.13	19.81	19.81	19.81	19.81
	INT.	15.85	19.81	22.45	22.45	23.78	25.10	25.10	23.78	23.78	23.78	23.78
SPEED (RPM)	CONT.	336	350	330	290	290	250	215	200	150	140	100
	INT.	450	440	425	365	350	315	365	240	180	170	120
PRESSURE (PSI)	CONT.	2973	2973	2973	2973	2973	2973	2973	2973	2538	2030.5	1523
	INT.	3480	3480	3480	3480	3480	3480	3480	3480	2756	2538	1740
TORQUE (LBF.IN)	CONT.	3088.91	4159.85	4708.60	5531.72	6195.53	7169.11	8009.93	8762.24	9824.33	8673.74	9293.29
	INT.	3611.11	4850.21	5328.15	6284.03	6992.09	8231.20	9160.53	10089.86	10691.71	10974.93	10443.89
POWER (HP)	CONT.	16.47	23.10	24.65	25.45	28.51	28.44	27.33	27.81	23.38	19.27	14.75
	INT.	25.78	33.86	35.93	36.39	38.83	41.14	53.05	38.42	30.54	29.60	19.89
LENGTHS	L	154	158	161	163	166	170	174	176	185	191	209

NOTE: 1. CONTINUOUS DATA: THE MAX. VALUE OF OPERATING MOTOR CONTINUOUSLY.
2. INTERMITTENT DATA: THE MAX. VALUE OF OPERATING MOTOR IN 6 SECONDS PER MINUTE.
3. A SIMULTANEOUS MAX. RPM AND MAX. PRESSURE IS NOT RECOMMENDED.
4. OPTIMUM OPERATING SITUATION SHOULD BE AT THE 1/3~2/3 OF THE CONTINUOUS OPERATING SITUATION.

BMEW WHEEL MOUNT



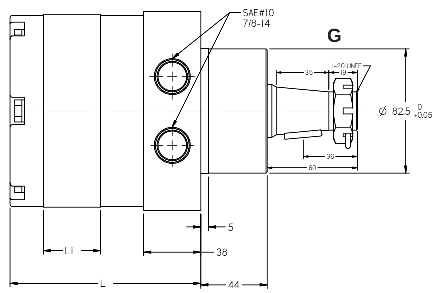
391-301x-F

BME 6 HOLES MAGNETO

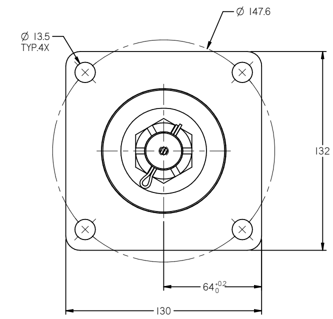
391-001xF

DIMENSIONS

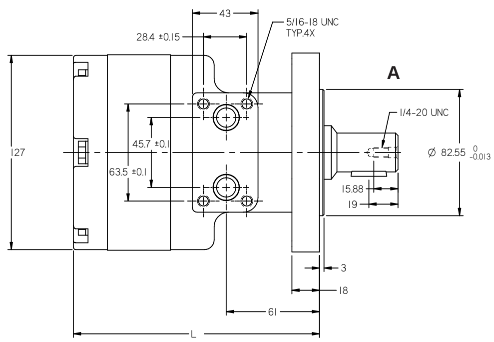
BMEW WHEEL MOUNT

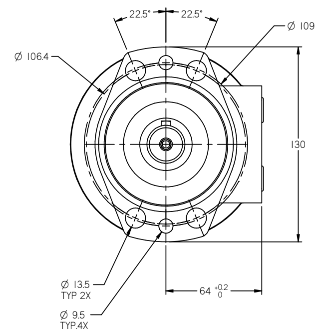


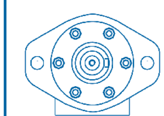
MOUNTING FLANGES

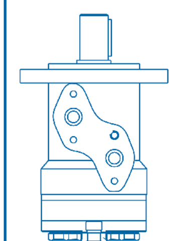


BME 6 HOLES MAGNETO





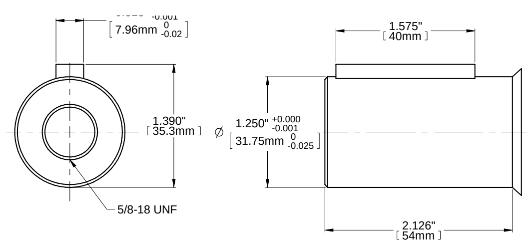




SHAFT TYPE

A

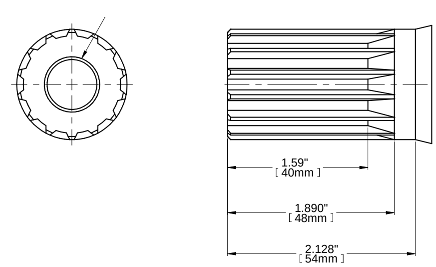
1 1/4” STRAIGHT KEY



CYLINDER SHAFT: Ø31.75mm X 54mm
PARALLEL KEY: 7.96mm X 7.96mm X 40mm
LINK THREAD: 5/8-18 UNF

B

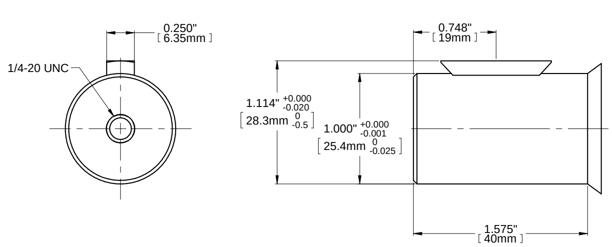
1 1/4”-14T SPLINED



INVOLUTE SPLINE SHAFT: Ø31.75mm X 54mm
14 TEETH, DP13/24
LINK THREAD: 5/8-18 UNF

E

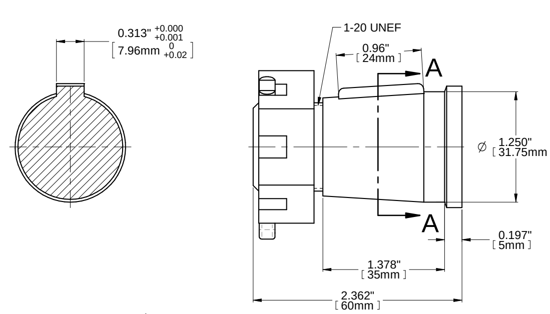
1” STRAIGHT KEY



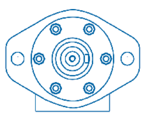
CYLINDER SHAFT: Ø25.4mm X 39mm
WOODRUFF KEY: Ø25.4mm X 6.35mm
LINK THREAD: 1/4-20 UNC

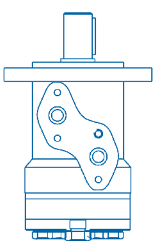
G

1 1/4" TAPERED



CONE SHAFT: Ø31.75mm
PARALLEL KEY: 7.96mm X 7.96mm X 24mm
LINK THREAD: 1-20 UNEF
TAPAER 1:8





BM5 IS A LARGE VOLUME, DISC VALVE, HIGH PRESSURE MOTOR WITH RADIAL BEARINGS DESIGN AND CAN BEAR GREATER LOAD.

BM5

MAIN SPECIFICATIONS

DISPLACEMENT cm^3		80	100	125	160	200	250	305	400	500
REVOLUTION in^3		4.8	6.1	7.6	9.7	12.2	15.2	18.59	24.4	30.4
FLOW (GPM)	CONT.	20	20	20	20	20	20	20	20	20
	INT.	22	25	25	30	30	30	30	30	30
SPEED (RPM)	CONT.	799	742	576	460	365	294	246	183	148
	INT.	908	924	720	713	577	462	365	287	230
PRESSURE (PSI)	CONT.	2980	3045	3045	3045	3045	2900	2900	2320	1740
	INT.	4350	4350	4350	3770	3770	3770	3480	2465	2030
	PEAK	4350	4350	4350	4350	4350	4350	4350	2900	2465
TORQUE (LBF.IN)	CONT.	2033	2564	3182	4058	4791	5658	5967	7337	7470
	INT.	2555	3359	4243	4685	5622	6895	6851	8044	8398
	PEAK	2917	3713	4774	4818	5834	7205	8212	8840	9061
POWER (HP)	CONT.	27.76	28.76	28.76	16.91	16.91	16.91	11.84	11.84	11.84
	INT.	50.75	50.75	50.75	33.95	35.95	35.53	29.6	29.95	25.37
LENGTHS	L1	0.59	0.73	0.90	1.14	1.41	1.77	2.20	2.83	3.56
	L3	7.08	7.22	7.40	7.64	7.91	8.27	8.70	9.33	10.25

NOTES 1. CONTINUOUS DATA: THE MAX. VALUE OF OPERATING MOTOR CONTINUOUSLY.
2. INTERMITTENT DATA: THE MAX. VALUE OF OPERATING MOTOR IS 10 % PER MINUTE.
3. A SIMULTANEOUS MAX. RPM AND MAX. PRESSURE IS NOT RECOMMENDED.
4. OPTIMUM OPERATING SITUATION SHOULD BE AT THE 1/3~2/3 OF THE CONTINUOUS OPERATION.

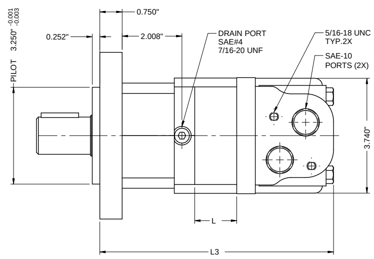
PART NUMBERS

FLANGE	SHAFT	80	100	125	160	200	250	315	400	500
		4,8	6,1	7,6	9,7	12,2	15,2	19,2	24,4	30,4
SAE A 4 BOLT	1 1/4" STRAIGHT	351-0571	351-0572	351-0573	351-0574	351-0575	351-0576	351-0577	351-0578	351-0570
	1 1/4" SPLINED	351-2031	351-2032	351-2033	351-2034	351-2035	351-2036	351-2037	351-2038	351-2030
	1" STRAIGHT	351-0581	351-0582	351-0583	351-0584	351-0585	351-0586	351-0587	351-0588	351-0580
	1" SPLINED	351-1301G	351-1302G	351-1303G	351-1304G	351-1305G	351-1306G	351-1307G	351-1308G	351-1300G
MAGNETO MOUNT	1 1/4" STRAIGHT	351-0211	351-0212	351-0213	351-0214	351-0215	351-0216	351-0217	351-0218	351-0210
	1 1/4" SPLINED	351-2111	351-2112	351-2113	351-2114	351-2115	351-2116	351-2117	351-2118	351-2110
	1" STRAIGHT	351-0651	351-0652	351-0653	351-0654	351-0655	351-0656	351-0657	351-0658	351-0650
	1" SPLINED	351-1121	351-1122	351-1123	351-1124	351-1125	351-1126	351-1127	351-1128	351-1120
WHEEL MOTOR	1 1/4" TAPERED	351-3141	351-3142	351-3143	351-3144	351-3145	351-3146	351-3147	351-3148	351-3140

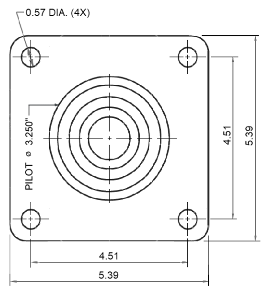
ALSO AVAILABLE:
- OTHER SHAFT DIMENSION
- OTHER MOUNTING FLANGES

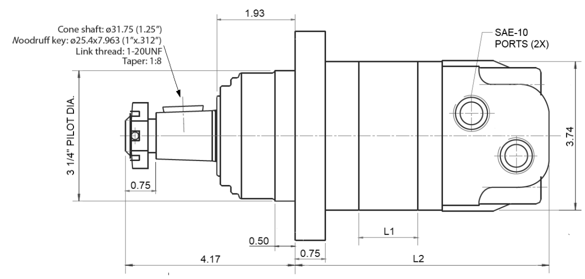
DIMENSIONS

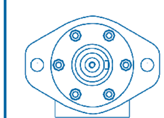
BM5

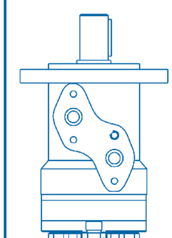


BM5W



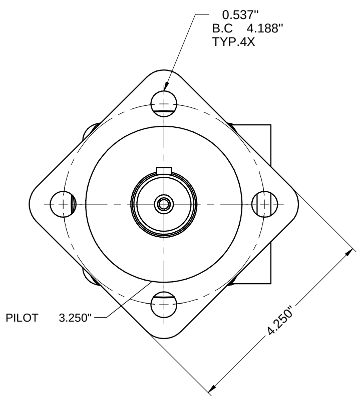




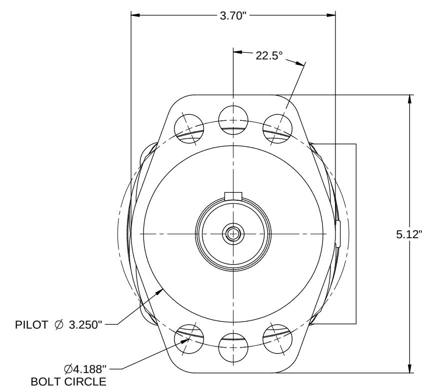


MOUNTING FLANGES

SAE A - 4 BOLT

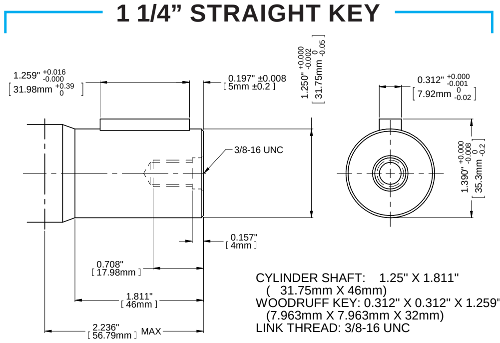


MAGNETO - 4 BOLT



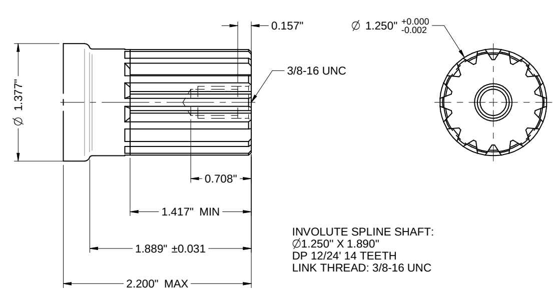
SHAFT TYPE

1 1/4" STRAIGHT KEY



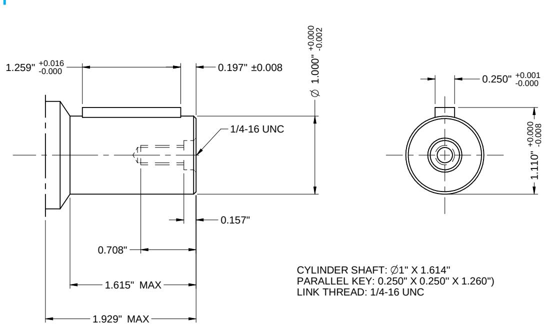
CYLINDER SHAFT: 1.25" X 1.811"
(31.75mm X 46mm)
WOODRUFF KEY: 0.312" X 0.312" X 1.259")
(7.963mm X 7.963mm X 32mm)
LINK THREAD: 3/8-16 UNC

1 1/4"-14T SPLINED



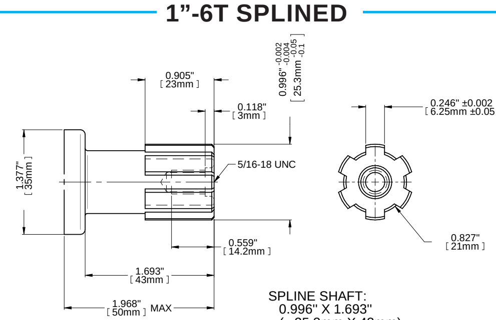
INVOLUTE SPLINE SHAFT:
∅1.250" X 1.890"
DP 12/24' 14 TEETH
LINK THREAD: 3/8-16 UNC

1" STRAIGHT KEY

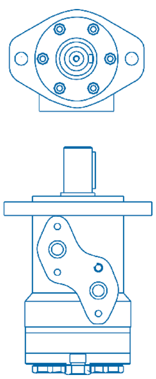


CYLINDER SHAFT: ∅1" X 1.614"
PARALLEL KEY: 0.250" X 0.250" X 1.260")
LINK THREAD: 1/4-16 UNC

1"-6T SPLINED



SPLINE SHAFT:
0.996" X 1.693"
(25.3mm X 43mm)
0.996" X 0.827" 0.246" 6 TEETH
(25.3mm X 21mm X 6.25mm)
LINK THREAD: 5/16-18 UNC



CROSSOVER RELIEF VALVES

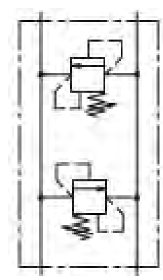
- MADE TO ABSORB PEAK OF PRESSURE
- COMPACT DESIGN
- FITS MANY MANUFACTURERS

PART NO	FITS ON MOTORS	PSI RANGE	PORT
469-8210	BMM	500-2000	SAE #6
460-2100	BM1/BM2	725-1450	SAE #10
460-2210	BM1/BM2	1000-3000	
465-1210	BM5	1000-3000	

FOR HMM

FOR BM1 & BM2

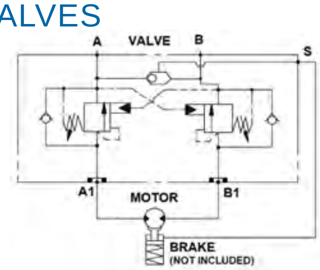
FOR BM5



INTEGRATED COUNTERBALANCE VALVES

- MADE TO SMOOTLHY BRAKE ROTATION
- FITS ON BM1 & BM2 MOTORS- INTEGRATE A
- SHUTTLE TO SEND A SIGNAL/OIL

PART NO
1281



ZD80 HYDRAULIC BRAKES TO INSTALL ON MOTORS

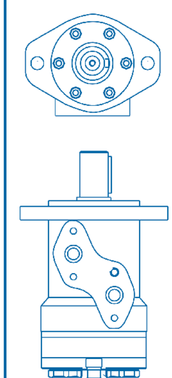
- MULTI-DISC BRAKE THAT RELEASE UNDER HYDRAULIC PRESSURE
- COMPACT, EASY TO INSTALL
- MIN STARTING TORQUE: 3980 LB*IN
- MIN OPERATINGE PRESSURE: 360 PSI
- MAX OPENING PRESSURE: 4350 PSI
- DRAIN AND BRAKE RELEASE PORT: SAE-04

PART NO	FEMALE	MALE	MOUNTING FLANGE
ZD80-A014	1"-6T SPLINE	1" KEYED	SAE-A 2/4 BOLTS
ZD80-A024		1"-6T SPLINE	

MOTOR WITH INTEGRATED BRAKES

BM2B

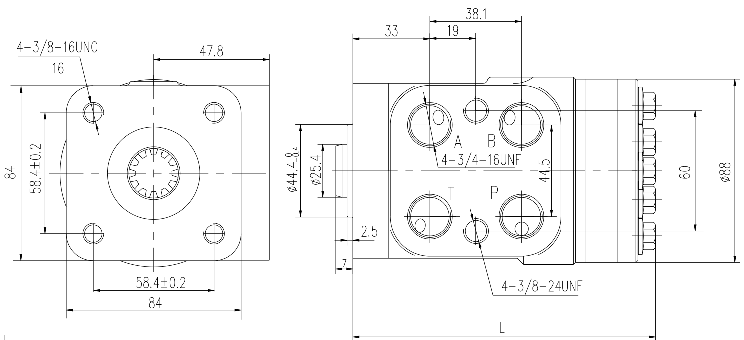
BM6B

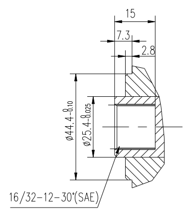


STEERING UNITS

- OPEN CENTER, NON LOAD REACTION
- MAX PRESSURE: 2300 PSI
- SHAFT INTPUT: 12 th - 16/32 - 30 (SAE) T SPLINE

PART NO	DISPLACEMENT in^3 *(cm^3)* / rev.	LENGHT (IN)
070-1341	4.9 *(80)*	5.1
070-1532	6.1 *(100)*	5.2
070-1533	7.6 *(125)*	5.3
070-1334	9.7 *(160)*	5.5
070-1335	12.2 *(200)*	5.8
070-1336	15.2 *(250)*	5.9



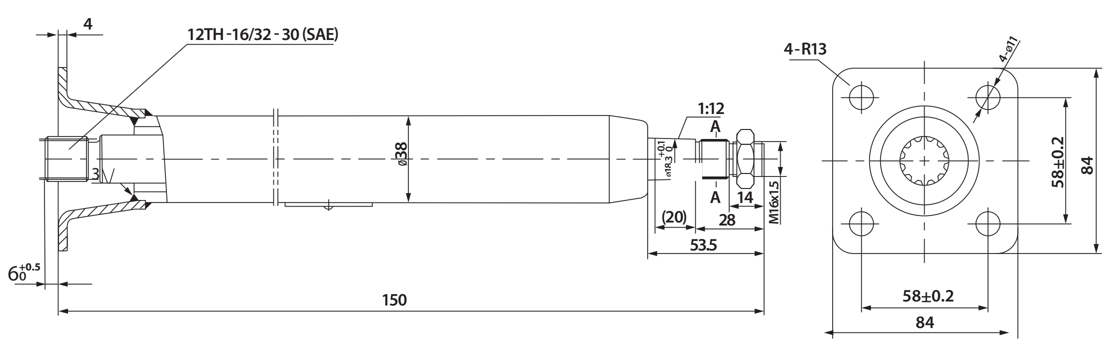


DIMENSIONS									
cm3/rev	80	100	125	160	200	250	315	400	500
DIM "L"	129.5	132	135	140	145	151	161	171	183

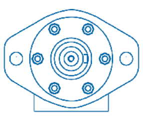
STEERING COLUMNS

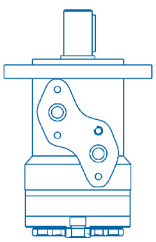
- FITS ALSO ON MOST COMMON DANFOSS & CHARLYNN UNITS

PART NO	LENGHT
651-1579-S	6”
650-1500-S	8”
651-1504-S	16”



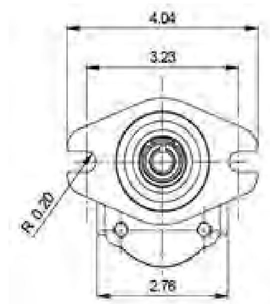
LENGHT

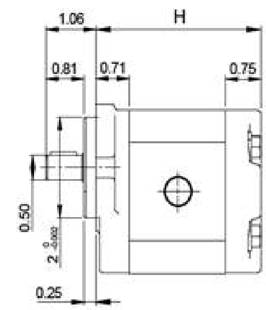




1.5ME SERIE

- BI-DIRECTIONAL
- SAE-AA 2 BOLT MOUNTING FLANGE
- 1/2 PARALLEL SHAFT
- SAE 04 DRAIN PORT, 43 PSI MAX



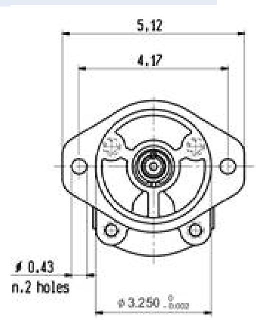


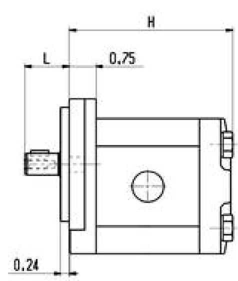
PART NO	DISPLACEMENT in³ (cm³) / rev.	RPM MIN	RPM MAX	MAX PSI	PORT SIZE IN & OUT
6109 1032 8	0.17 *(2.8)*	700	4500	3625	SAE 8
6109 1108 8	0.21 *(3.5)*	700	4500	3625	SAE 8
6109 1034 8	0.25 *(4.1)*	700	4000	3625	SAE 8
6109 1109 8	0.32 *(5.2)*	700	4000	3335	SAE 8
6109 1036 8	0.38 *(6.2)*	600	3600	3335	SAE 8
6109 1110 8	0.46 *(7.6)*	600	3300	2900	SAE 10
6109 1038 8	0.57 *(9.3)*	600	3000	2610	SAE 10
6109 1039 8	0.67 *(11)*	600	3000	2465	SAE 10

2ME SERIE

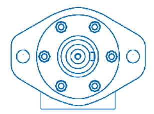
- BI-DIRECTIONAL
- SAE-A 2 BOLT MOUNTING FLANGE
- 5/8" PARALLEL SHAFT
- SAE 04 DRAIN PORT, 43 PSI MAX

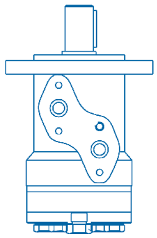
ALSO AVAILABLE:
- OTHER SHAFT DIMENSIONS
- OUTRIGGER BEARING TO ACCEPT SIDE LOAD
- REAR PORT COVER
- INTERNAL DRAIN





PART NO	DISPLACEMENT in³ (cm³) / rev.	RPM MIN	RPM MAX	MAX PSI	PORT SIZE IN & OUT
6120 9594 8	0.40 *(6.5)*	600	4000		
6120 8166 8	0.50 *(8.3)*		3600		
6120 8361 8	0.68 *(11.3)*	500	3500	3600	SAE 10
6120 8438 8	0.84 *(13.8)*		3400		
6120 8439 8	1.01 *(16)*		3200		
6120 8440 8	1.15 *(19)*	450		3140	
6120 8441 8	1.37 *(22.5)*		3000	2900	SAE 12
6120 8442 8	1.58 *(26)*		2850	2600	



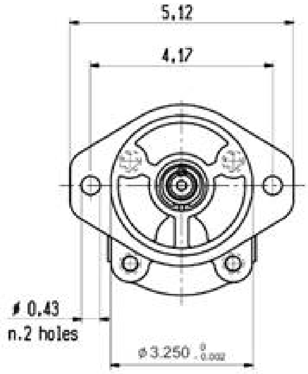


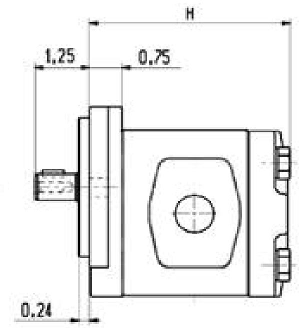
2MGE CAST IRON SERIE

- BI-DIRECTIONAL
- SAE-A 2 BOLT MOUNTING FLANGE
- 5/8" PARALLEL SHAFT
- SAE 04 DRAIN PORT, 43 PSI MAX

ALSO AVAILABLE:
- OTHER SHAFT DIMENSIONS
- OUTRIGGER BEARING TO ACCEPT SIDE LOAD
- REAR PORT COVER
- INTERNAL DRAIN

PART NO	DISPLACEMENT in³ (cm³) / rev.	RPM MIN	RPM MAX	MAX PSI	PORT SIZE IN & OUT
6146 7087 8	1.01 *(16)*	450	3200	3600	SAE 10
6146 7088 8	1.18 *(19)*	450	3200	3140	SAE 12
6146 7089 8	1.37 *(22.5)*	450	3000	2900	SAE 12
6146 7090 8	1.58 *(26)*	450	2850	2600	SAE 12

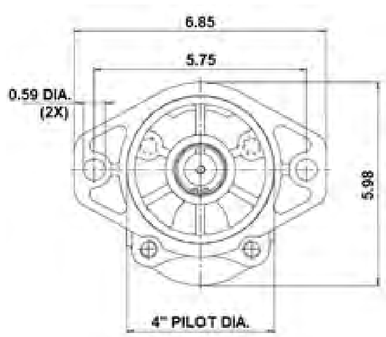


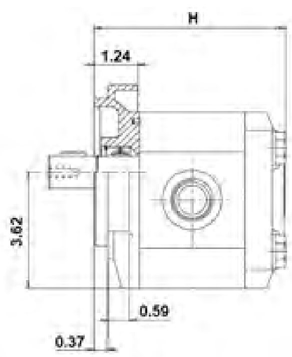


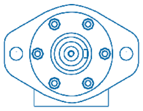
3ME SERIE

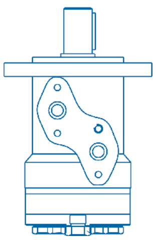
- BI-DIRECTIONAL
- SAE-B 2 BOLT MOUNTING FLANGE
- 7/8" PARALLEL SHAFT
- 3/8" BSP DRAIN PORT, 43 PSI MAX

<table>
<tr><th>PART NO</th><th>DISPLACEMENT in³ (cm³) / rev.</th><th>RPM MIN</th><th>RPM MAX</th><th>MAX PSI</th><th>PORT INLET</th><th>PORT OUTLET</th></tr>
<tr><td>6129 7873 8</td><td>1.65 (27)</td><td>600</td><td rowspan="2">3000</td><td rowspan="2">360</td><td rowspan="2">SAE 16</td><td rowspan="2">SAE 12</td></tr>
<tr><td>6129 7874 8</td><td>2.04 (38)</td><td rowspan="2">500</td></tr>
<tr><td>6129 7876 8</td><td>2.86 (46)</td><td>2750</td><td>3500</td><td rowspan="2">SAE 20</td><td rowspan="2">SAE 16</td></tr>
<tr><td>6129 7877 8</td><td>3.30 (55)</td><td>400</td><td>2500</td><td>3190</td></tr>
</table>









TMB 700

FIXED DISPLACEMENT BENT AXIS PISTON MOTORS

FEATURES:

- AVAILABLE WITH ISO, SAE AND DIN STANDARD MOUNTING
- HIGH SPEED AND HIGH EFFICIENCY MOTORS
- SMOOTH OPERATION OVER THE ENTIRE SPEED RANGE
- LONG LIFE WITH HIGH PERFORMANCES

	MAX			
DISPLACEMENT in³ (cm³) / rev.	PSI (RATED)	PSI PEAK	RPM	WEIGHT KG *(LB)*
12,6 *(0.8)*, 17,6 *(1.1)*	*5075*	*5800*	7.500	9 *(20)*
25,4 *(1.5)*, 34,2 *(2.1)*			5.000	
41,2 *(2.5)*, 47,1 *(2.9)*, 56,0 *(3.4)*, 63.6 *(3.9)*			5.300	15 *(33)*
83,6 *(5.1)*, 90,7 *(5.5)*			4.400	18 *(40)*
108,0 *(6.6)*, 130,0 *(7.9)*			4.200	35 *(77)*

TMF 600

FIXED DISPLACEMENT AXIAL PISTON MOTORS

FEATURES:

- HIGH STARTING TORQUE
- SMOOTH OPERATION
- LONG SERVICE LIFE
- HIGH POWER DENSITY
- BUILT-IN VALVES AVAILABLE
- SPEED SENSOR AVAILABLE

	MAX			
DISPLACEMENT in³ (cm³) / rev.	PSI (RATED)	PSI PEAK	RPM	WEIGHT KG *(LB)*
22 *(1.3)*, 28 *(1.7)*	*5,075*	*6090*	4200	11,3 *(25)*
35 *(2.1)*, 40 *(2.4)*, 46 *(2.8)*			4000	17,8 *(39)*
50 *(3.1)*		*5945*	3600	
63 *(3.8)*, 71 *(4.3)*, 75 *(4.6)*, 92 *(5.6)*		*6090*	3500	32,5 *(72)*
100 *(6.1)*		*5945*	3240	

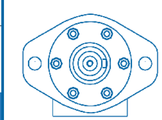
TMF 900

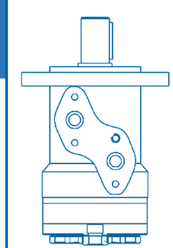
FIXED DISPLACEMENT AXIAL PISTON MOTORS

FEATURES:

- HIGH PRESSURE
- HIGH ROTATION SPEED
- EXCELLENT VOLUMETRIC AND MECHANICAL EFFICIENCY
- COMPACT DESIGN

	MAX			
DISPLACEMENT IN³ *(CM³)* / REV.	PSI (RATED)	PSI PEAK	RPM	WEIGHT KG *(LB)*
72 *(4.4)*	*5800*	*6525*	*4100*	28 *(62)*
90 *(5.5)*			*4000*	34 *(75)*
110 *(6.7)*			*3800*	





TMV 550

TWO SPEED AXIAL PISTON MOTORS

FEATURES:
- EXCELLENT WEIGHT/POWER RATIO
- HIGH ROTATION SPEED
- EXCELLENT VOLUMETRIC AND MECHANICAL EFFICIENCY
- COMPACT DESIGN

	MAX			
DISPLACEMENT IN³ *(CM³)* / REV.	PSI (RATED)	PSI PEAK	RPM	WEIGHT KG *(LB)*
46 *(2.7)*, 50 *(3.1)*, 64 *(3.9)*	*4350*	*5800*	4.000	20 *(44)*

TMV 650

TWO SPEED AXIAL PISTON PLUG-IN MOTORS

FEATURES:
- SWASHPLATE DESIGN FOR HYDROSTATIC TRANSMISSIONS
- PLUG-IN MOUNTING
- HEAVY DUTY BEARINGS FOR LONG SERVICE LIFE
- HIGH PERMISSIBLE OUTPUT SPEED

	MAX			
DISPLACEMENT IN³ *(CM³)* / REV.	PSI (RATED)	PSI PEAK	RPM	WEIGHT KG *(LB)*
25 *(1.5)*, 30 *(1.8)*, 35 *(2.1)*, 38 *(2.3)*, 45 *(2.7)*	*4350*	*5075*	3500	15,6 *(34)*

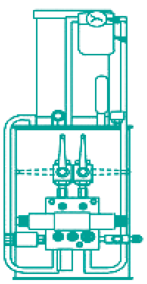
BTM

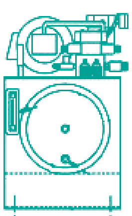
SPRING LOADED DISC BRAKES

FEATURES:
- BRAKING TORQUE UP TO 520 NM *(383,2 LBF.FT)*
- SUITABLE FOR DIFFERENT INPUT / OUTPUT SHAFTS AND FLANGES

<table>
<tr><th>BRAKE MODEL</th><th>STATIC TORQUE N-M (LBF/FT)</th><th>MAXIMUM PILOT PRESSURE PSI</th><th>MINIMUM COMPLETE OPENING PRESSURE PSI</th><th>WEIGHT KG (LB)</th></tr>
<tr><td>BTM 03</td><td>30 (22.1) - 40 (29.5)</td><td rowspan="8">5075</td><td>44 - 73</td><td rowspan="8">9,5 (21)</td></tr>
<tr><td>BTM 07</td><td>60 (44.2) - 80 (59.0)</td><td>58 - 87</td></tr>
<tr><td>BTM 11</td><td>100 (73.7) - 120 (88.4)</td><td>102 - 131</td></tr>
<tr><td>BTM 18</td><td>170 (125.3) - 190 (140.0)</td><td rowspan="2">160- 189</td></tr>
<tr><td>BTM 24</td><td>230 (169.5) - 250 (184.3)</td></tr>
<tr><td>BTM 32</td><td>320 (235.8) - 330 (243.2)</td><td rowspan="2">218 - 247</td></tr>
<tr><td>BTM 42</td><td>400 (294.8) - 440 (324.3)</td></tr>
<tr><td>BTM 50</td><td>480 (353.8) - 520 (383.2)</td><td>247 - 276</td></tr>
</table>

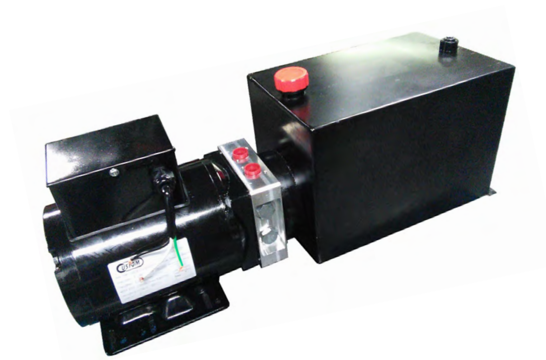
POWER UNITS





POWER PACKS AC/DC

- AC/DC MOTORS
- ADJUSTABLE RELIEF
- SAE-06 PORTS
- MANY PUMPS & TANK SIZE OFFERED
- CSA CERTIFIED AVAILABLE



POWER UNITS

WHATEVER YOUR REQUIREMENTS, OUR EXPERIENCED TEAM WILL BE ABLE TO DESIGN THE UNIQUE HYDRAULIC SOLUTION THAT MEETS YOUR INDIVIDUAL SPECIFICATIONS. PROJECT APPRAISAL, INVENTORY REQUEST, AND ORDERS ARE ACCESSIBLE TO AFFILIATED DISTRIBUTORS.

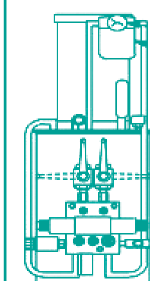
POWER UNITS

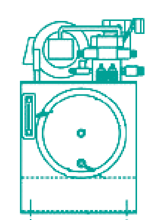
Our power units follow the same vigorous production and assembly processes as the rest of our products. The Hydro Custom power units are used in various applications :

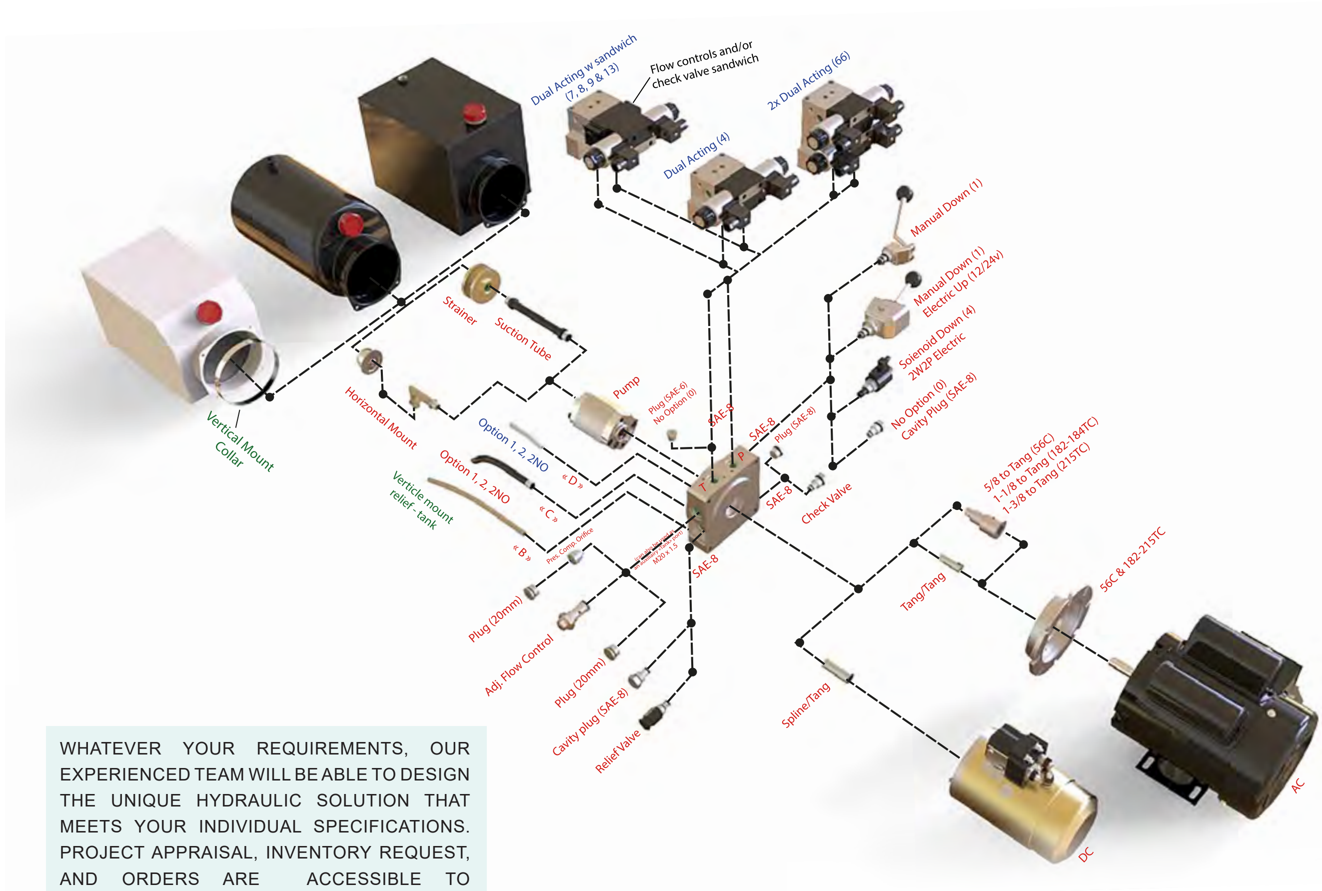
- *Car Lift (ETL Certified)*
- *Snow Plow*
- *Dock Leveler*
- *Lift Table*
- *Scissor Lift*
- *Tail Gate*
- *Fork Lift*
- *Tipper Trailer*
- *Dump Trailer*
- *Garbage Truck*
- *RV*
- *Wheel Chair and Medical*

FEATURES AND BENEFITS

- Choice of configurations of multiple components such as pumps, valves, motors and tanks.
- Experienced advisers in hydraulic circuit conception that will help you with the design of powers units according to your needs and requirements.
- Power units can be fitted with blocks manifold designed to your specifications and manufactured in our workshops.
- Mounting and testing of power units in a clean environment and without contamination, according to procedures established by highly qualified technicians.
- Manufacturing customized solutions or series are possible taking into consideration the time of execution, the amount and the budgetary.
- Price constraints.
- 3D drawings, hydraulic and electrical plans and reports of tests (flow, pressure, speed, etc.) upon request.
- Variety of standard power units distributed in our three warehouses across North America.
- Several points of service in North America with hydraulic spare parts.
- Well studied Quality/Price Ratio in order to provide you with the best possible offer.







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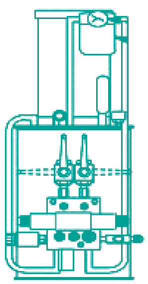
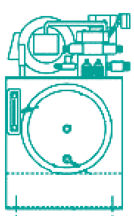
POWER UNITS



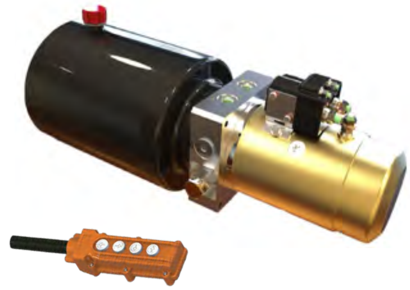


MODEL CODE

EXEMPLE

B - EKD - F - A2.5 - PU - 4 - REMOTE

DC/AC VOLTAGE · HORSE POWER · PRESSURE · PUMPS · RESERVOIRS · SCHEMATIC · REMOTE



CODE	DESCRIPTION
OMIT	NO REMOTE
AR	REMOTE + 10FT CABLE

DC MOTORS ONLY

DC MOTORS 2500 RPM

CODE	VOLTAGE & HORSEPOWER
1W2W	12V, 2 HP
2A2W	24V, 2.5 HP

AC MOTORS 1800 RPM

CODE	VOLTAGE
B	110/220V, 1PH., CSA
C	575V, 3 PH
E	208-230/460V, 3 PH.

CODE	PRESSURE
X	NO RELIEF
D	145-1500 PSI
F	580-2900 PSI
H	1150-3600 PSI

CODE	HORSEPOWER
CKD	0,5
DKD	0,75
EKD	1
EKDB	1 HP + BUTTON & CABLE*
EKDT	1 HP + TOGGLE & CABLE*
FKD	1,5
GKD	2
HKD	3
JKD	5

*AVAILABLE FOR 110/220V MOTORS ONLY

PUMPS

ALUMINIUM GEAR PUMP

CODE	MAX PSI		MAX RPM		FLOW GPM	
	CONT.	INT.	CONT.	INT.	AC UNIT	DC UNIT
A0.8	2900	3625	2000	4000	0,32	SEE CHARTS
A1.2	2900	3625	2000	4000	0,49	
A1.6	2900	3625	2000	4000	0,66	
A2.1	2900	3625	2000	4000	0,88	
A2.5	2900	3625	2000	4000	1,05	
A3.2	2900	3625	2000	4000	1,36	
A3.7	2600	3335	2000	3600	1,57	
A4.2	2600	3335	2000	3600	1,80	
A5	2030	2600	1500	3000	2,14	
A6	2030	2600	1500	3000	2,57	
A8	1450	2030	1500	3000	3,43	

PRESSURE LIMITATION (PSI)

MOTOR & PUMP COMBINATION

	PUMP CODE										
HP	0,8	1,2	1,6	2,1	2,5	3,2	3,7	4,2	5,0	6,0	8,0
1/2	2250	1482	1112	828	695	537	465	405	340	283	212
3/4	3374	2223	1668	1242	1043	806	697	607	510	425	319
1	4499	2965	2223	1656	1391	1074	929	809	680	567	425
1 1/2	6749	4447	3335	2483	2086	1611	1394	1214	1020	850	637
2	8998	5929	4447	3311	2781	2149	1858	1619	1360	1133	850
2,5	11248	7412	5559	4139	3477	2686	2323	2023	1700	1416	1062
3	13498	8894	6670	4967	4172	3223	2787	2428	2040	1700	1275
5	22496	14823	11117	8278	6953	5371	4645	4047	3399	2833	2125

12VDC UNITS GPM FLOW CHART

	PUMP (CC)						
PSI	0,8	1,2	1,6	2,1	2,5	3,2	4,2
0	0,99	1,50	1,53	2,51	2,71	3,24	4,25
500	0,87	1,33	1,35	1,88	2,25	2,71	2,91
1000	0,85	1,18	1,12	1,65	1,98	2,31	2,14
1500	0,77	1,12	1,06	1,48	1,72	1,78	1,59
2000	0,73	1,04	0,95	1,35	1,53	1,65	1,19
2500	0,69	0,95	0,9	1,12	1,39	1,45	0,9
3000	0,63	0,71	0,79	1,03	1,22	1,32	0,85

24VDC UNITS GPM FLOW CHART

	PUMP (CC)						
PSI	0,8	1,2	1,6	2,1	2,5	3,2	4,2
0	1,12	1,74	2,05	2,38	2,77	3,31	3,43
500	0,90	1,34	1,62	1,78	2,11	2,54	2,64
1000	0,79	1,19	1,41	1,62	1,72	2,01	2,18
1500	0,73	1,04	1,21	1,37	1,40	1,45	1,78
2000	0,66	0,95	1,12	1,19	1,22	1,32	1,59
2500	0,63	0,89	0,99	1,06	1,16	1,21	1,39
3000	0,59	0,79	0,94	0,92	1,11	1,20	1,32

WARNING! MORE THAN 250 AMPERES

RESERVOIRS

BREATHER WITH DIPSTICK INCLUDED

PLASTIC HORIZONTAL

CODE	GALLONS	USABLE	DIMENSIONS
PR	1,0	0,7	7.1 SQ. X 7.9 LG.
PS	1,3	1,2	7.1 SQ. X 11.4 LG.
PT	1,6	1,6	7.1 SQ. X 13.2 LG.
PU	2,1	2,1	7.1 SQ. X 17.3 LG.
PV	2,6	2,6	7.1 SQ. X 20.9 LG.
PW	3,2	3,1	7.1 SQ. X 21.6 LG.

ROUND STEEL HORIZONTAL

CODE	GALLONS	USABLE	DIMENSIONS
RY	0,4	0,26	4.75 DIA. X 6.3 LG.
RZ	0,53	0,4	4.75 DIA. X 8.5 LG.
RA	1	1,5	7.0 DIA X 7.8 LG.
RB	1,3	2,1	7.0 DIA X 9.8 LG.
RC	2,1	2,6	7.0 DIA X 14.5 LG.
RD	2,6	2,7	7.0 DIA X 17.3 LG.

SQUARE STEEL HORIZONTAL

CODE	GALLONS	USABLE	DIMENSIONS
SD	2,6	2,2	7.7W X 8.25H X 10.2 LG.
SE	3,2	2,6	7.7W X 8.25H X 11.8 LG.
SF	4	3,5	7.7W X 8.25H X 16.1 LG.
SH	5,3	4,7	7.7W X 8.25H X 21 LG.
SJ	6,6	6,2	7.7W X 8.25H X 27.8 LG.

PLACTIC VERTICAL

CODE	GALLONS	USABLE	DIMENSIONS
QR	1,0	0,79	7.1 SQ. X 7.9 LG.
QS	1,3	1,3	7.1 SQ. X 11.4 LG.
QT	1,6	1,5	7.1 SQ. X 13.2 LG.
QU	2,1	2,1	7.1 SQ. X 17.3 LG.
QV	2,6	2,6	7.1 SQ. X 20.9 LG.
QW	3,2	2,7	7.1 SQ. X 21.6 LG.

ROUND STEEL VERTICAL

CODE	GALLONS	USABLE	DIMENSIONS
TK	0,8	0,5	7.0 DIA X 7.8 LG.
TL	1,3	1,2	7.0 DIA X 11.8 LG.
TM	2,6	2,1	7.0 DIA X 17.3 LG.
TN	3,2	2,7	7.0 DIA X 21.2 LG.

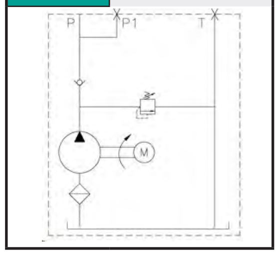
SQUARE STEEL VERTICAL

CODE	GALLONS	USABLE	DIMENSIONS
UE	3,2	2,9	7.7W X 8.25H X 11.8 LG.
UP	4,2	3,9	7.1 SQ. X 23.2 LG.
UQ	5,5	5,1	7.1 SQ. X 29.1 LG.
U2	6,6	6,6	11 X 13.5 X 11.8 LG.
U4	10,6	10,6	11 X 13.5 X 18 LG.

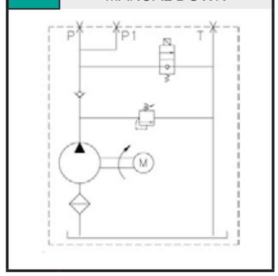
SCHEMATIC

RELIEF VALVE INCUDED UNLESS SPECIFIED

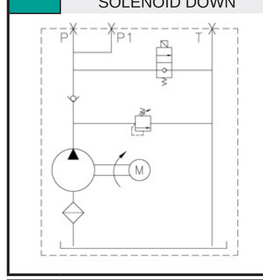
CODE 0	NO OPTION



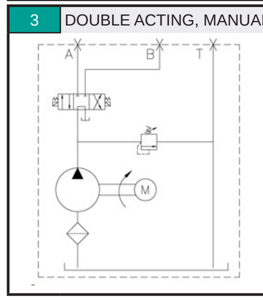
1	SINGLE ACTING, MANUAL DOWN



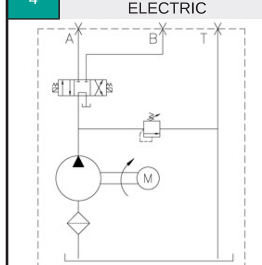
2	SINGLE ACTING, SOLENOID DOWN



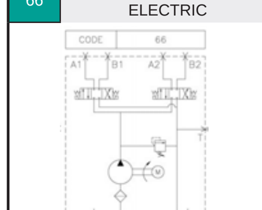
3	DOUBLE ACTING, MANUAL

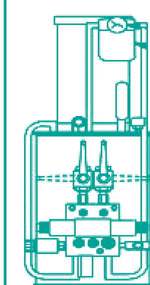


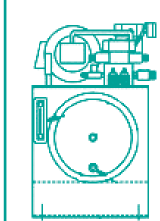
4	DOUBLE ACTING, ELECTRIC

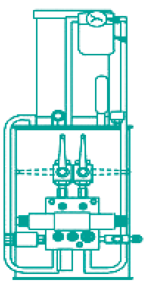


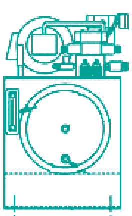
66	2x DOUBLE ACTING, ELECTRIC







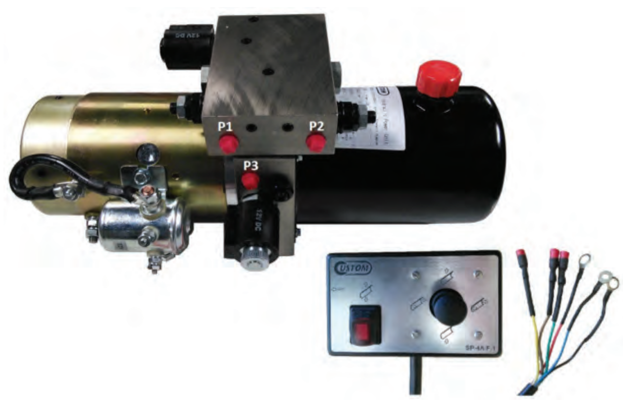


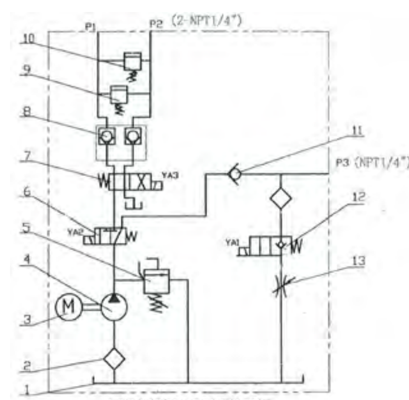


SNOW PLOW UNITS

UNIT PART NUMBER: 1W2W-F2.5ZR14A
REMOTE PART NUMBER: SP4AF1

- 12V DC POWER UNIT FOR SNOW PLOW APPLICATION
- CUSHION VALVE TO ABSORB SHOCKS ON LEFT-RIGHT MOVEMENT
- MADE FOR 3 SINGLE ACTING CYLINDERS
- 1/2 GALLONS TANK
- SAE-06 PORTS
- 2 AXIS JOYSTICK (LEFT, RIGHT, UP & DOWN)
- ROCKER SWITH WITH LIGHT TO ACTIVATE FLOAT POSITION
- 10 FOOT CABLE
- DIMENSIONS OF 15" X 10" X 6 3/4"





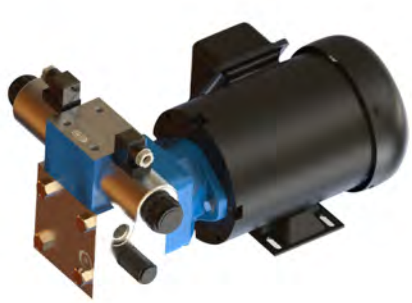
HYDRAULIC SCHEMATIC

DIRECT MOUNT "PUMP-MOTOR ASSEMBLIES"

FEATURES AND BENEFITS

- VERY ECONOMICAL & COMPACT DESIGN
- DIRECTLY ON ELECTRIC MOTORS.
- DIRECT MOUNT" MOTOR CAN BE ORDERED SEPARATELY

C US   C US



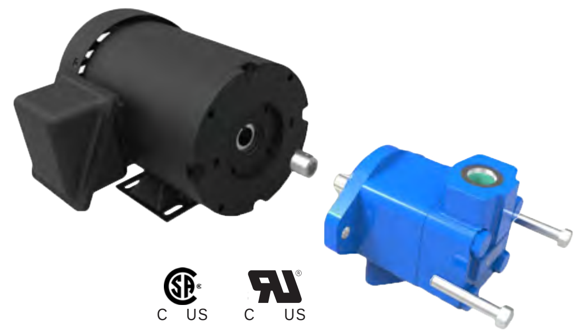
MODEL CODE

EXAMPLE

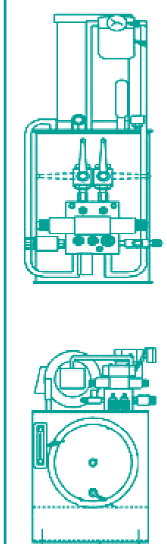
DM56CS4C - 4PS2.8

PUMP : 4PS2.5 (GEAR TYPE, 2.5CC)

MOTOR : DM56CS4C (1HP, 110/220V)



C US C US



MOTORS - TEFC - 1800 RPM

HP	PART NUMBERS			FRAME	PUMP SIDE FLANGE & SHAFT
	110/220V SINGLE PHASE	575V THREE PHASE	208-230/460V THREE PHASE		
0,50	DM56C1/2S4CF	-	-	56C	SAE A-2B FLANGE AND SAE AA-4B FLANGE
0,75	DM56C3/4S4CF	-	-		
1	DM56C1S4CF	-	-		
1,5	DM56C1.5S4CF	-	-		
2	DM56C2S4CF	-	-		
3	DM56C3S4CF	-	-		
	-	DM215TC3M4DF	DM215TC3P4AF	215TC	SAE A-2B FLANGE
5	-	DM215TC5M4DF	DM215TC5P4AF		
7,5	-	DM215TC7.5M4DF	DM215TC7.5P4AF		
10	-	DM215TC10M4DF	DM215TC10P4AF		
15	-	DM215TC15M4DF	DM215TC15P4AF		
20	-	DM215TC20M4DF	DM215TC20P4AF		

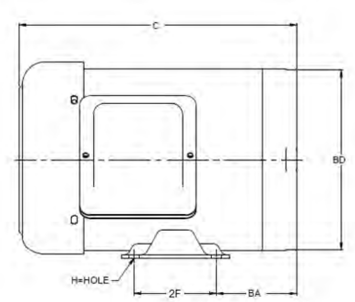
PUMPS

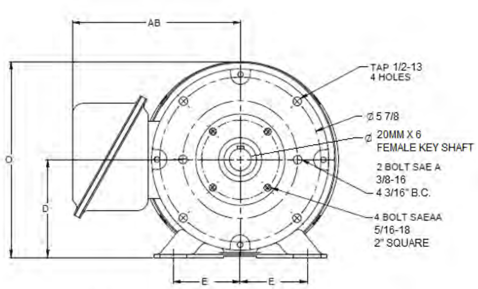
GEAR TYPE

CODE	GPM	MODEL
4PS1.4	0,71	1.5 PE PAGE 62
4PS2.1	1,00	
4PS2.8	1,23	
4PS3.5	1,71	
2PS4.5	2,1	2 PE PAGE 63
2PS6.5	3,12	
2PS8.3	3,9	
2PS11.3	5,3	
2PS13.8	6,55	
2PS16	7,87	

VANE TYPE

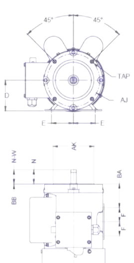
CODE	GPM	MODEL
22S1	1,5	V10 PAGE 69
22S2	3,0	
22S3	4,5	
22S4	6,0	
22S5	7,5	
22S6	9,0	
22S7	10,5	
22S8	12,0	V20 PAGE 69
22S9	13,5	
22S10	15,0	
22S11	16,5	
22S12	18,0	
22S13	19,5	





ALSO AVAILABLE
- HYDRAULIC CIRCUIT DIRECTLY MOUNTED ON THE PUMP
- VERY COMPACT DESIGN. LESS PIPING
- MANY OPTIONS

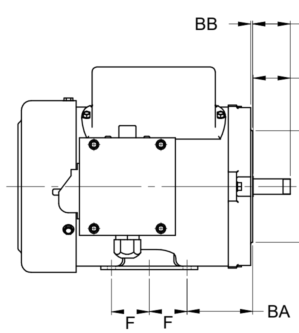
FRAME	C	D	E	2F	H	O	BD	AB	BA
56C	10 1/8	3 1/2	2 7/16	3	11/32 SLOTS	7	6 1/2 DIA	6 1/8	2 15/16
215TC	15 5/8	5 1/4	4 1/4	7	13/32 DIA	11	8 1/2 DIA	8 3/8	3 1/2

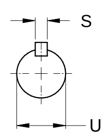


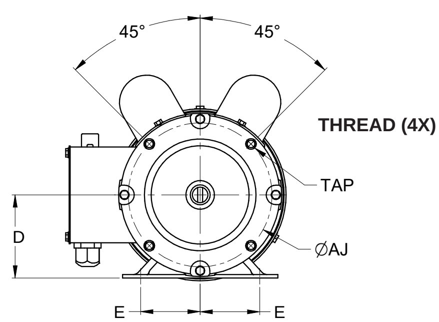
TEFC MOTORS

- CHOICE OF 1/3 TO 20HP
- 1800 RPM (3600 RPM AVAILABLE)
- SINGLE AND THREE PHASE
- NEMA FRAME FROM 56 TO 215 TC
- IP44 CLASS, 1.15 FS
- VOLTAGE AVAILABLE:
  - 115/220V
  - 575V
  - 208-230/460V

HP	PART NUMBERS			FRAME
	110/220V SINGLE PHASE	575V THREE PHASE	208-230/460V THREE PHASE	
1/3	F56C1/3S4C	F56C1/3M4D	F56C1/3M4A	56C
1/2	F56C1/2S4C	F56C1/2M4D	F56C1/2M4A	
3/4	F56C3/42S4C	F56C3/4M4D	F56C3/4M4A	
1	F56C1S4MOAG	F56C1M4D	F56C1M4A	
1.5	F56C1.5S4CMOAG	F56C1.5M4D	F56C1.5M4A	
2	F56C2S4CMOAG	F56C2M4D	F56C2M4A	
3	-	F182TC3M4D	F182TC3M4A	182TC
5	-	F184TC5M4D	F184TC5M4A	184TC
7.5	-	F215TC7.5M4D	F215TC7.5M4A	213TC
10	-	F215TC10M4D	F215TC10M4A	215TC
15	-	F215TC15M4D	F215TC15M4A	254TC
20	-	F215TC20M4D	F215TC20M4A	256TC







DIMENSIONS

FRAME SIZE	D	E	F	N	U	S	N-W	AJ	AK	BA	BB	THREAD
56C	3.500	2.438	1.5	1.937	0.625	0.188	1.880	5.875	4.500	2.750	0.160	3/8-16 UNC
143T 145T	3.5	2.75	2 2.5	2.31	0.875	0.188	2.25	5.875	4.5	2.25	0.16	3/8-16 UNC
182T 184T	4.500	3.750	2.250 2.750	2.875	1.125	0.250	2.750	7.250	8.500	2.750	0.250	1/2-12 UNC
213T	5.25	4.25	2.75	3.375	1.375	0.312	3.125	7.25	8.5	3.5	0.25	1/2-13 UNC
215T	5.250	4.250	3.500	3.375	1.375	0.312	3.125	7.250	8.500	3.500	0.250	1/2-13 UNC
254T 256T	6.25	5	4.125 5	4.32	1.625	0.375	4	7.25	8.5	4.75	0.25	1/2-13 UNC

PUMPS OVERVIEW

ALUMINIUM GEAR PUMPS

1.5PE
From 0.71 to 5.22 GPM
Up to 5000 RPM
Up to 3625 PSI
p.62

2PE
From 2.1 to 12.31 GPM
Up to 4000 RPM
Up to 3600 PSI
p.63

2.5PB
From 2.81 to 20.9 GPM
Up to 3000 RPM
Up to 3600 PSI
p.64

3PE
From 9.7 to 34.9 GPM
Up to 3000 RPM
Up to 3600 PSI
p.65

PLC
From 39.6 to 71.3 GPM
Up to 3000 RPM
Up to 3625 PSI
p.66

2PGE
From 7.87 to 12.31 GPM
Up to 3500 RPM
Up to 4350 PSI
p.66

CAST IRON GEAR PUMPS

PG330
From 6.1 to 21.2 GPM
Up to 3000 RPM
Up to 3800 PSI
p.67

PNC
From 38.58 to 71.3 GPM
Up to 3000 RPM
Up to 3500 PSI
p.67

VANE PUMPS

V10/V20
From 1.5 to 19.5 GPM
Up to 4800 RPM
Up to 2500 PSI
p.68

25VQ/35VQ/45VQ
From 18 to 90 GPM
Up to 2700 RPM
Up to 3000 PSI
p.69

OTHER PUMPS

p.68

VANE & PISTON PUMPS

DISPLACEMENT VANE PUMPS
From XXX to XXX GPM
Up to 1800 RPM
Up to XXX PSI
p.70

TXV
From 18.9 to 71.2 GPM
Up to 5880 RPM
Up to 3000 PSI
p.70

A10V SWASHPLATE
From 8.5 to 66.5 GPM
Up to 3300 RPM
Up to 5075 PSI
p.71

CLOSED LOOP PISTON PUMPS

TPV 1000
From XXX to XXX GPM
Up to 3600 RPM
Up to 4350 PSI
p.72

TPV 1200 BTB
From XXX to XXX GPM
Up to 3600 RPM
Up to 4350 PSI
p.72

TPV-TPVTC 1500
From XXX to XXX GPM
Up to 3600 RPM
Up to 5800 PSI
p.73

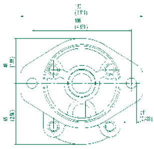
TPV 3200
From XXX to XXX GPM
Up to 3600 RPM
Up to 5075 PSI
p.73

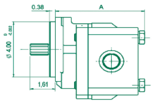
TPV-TPVT 3600
From XXX to XXX GPM
Up to 3600 RPM
Up to 6525 PSI
p.74

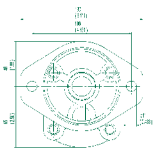
TPV 4300
From XXX to XXX GPM
Up to 3600 RPM
Up to 5057 PSI
p.74

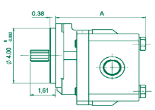
TPV 5000
From 0.71 to 5.22 GPM
Up to 5000 RPM
Up to 3625 PSI
p.75

TPV 9000
From XXX to XXX GPM
Up to 3600 RPM
Up to 5800 PSI
p.75









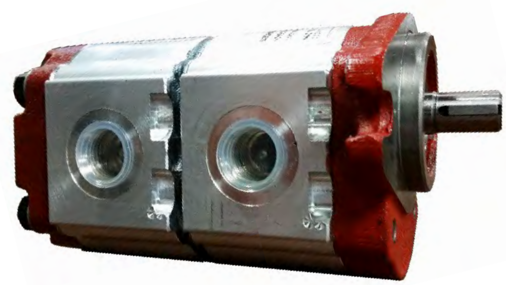
1.5PE SERIE

- CLOCKWISE ROTATION
- 1/2 STRAIGHT KEY SHAFT
- INLET: SAE-08 OUTLET: SAE-06

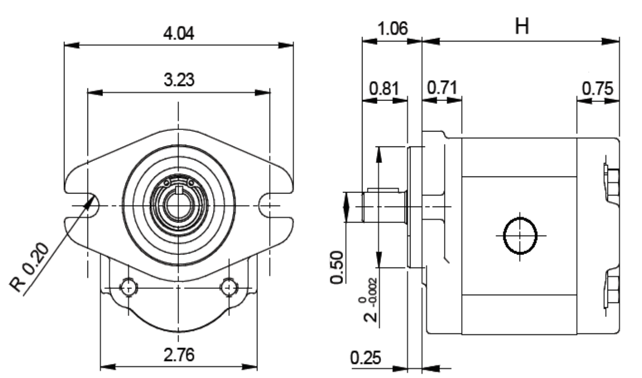
ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- TANDEM PUMPS & MULTIPLE PUMPS

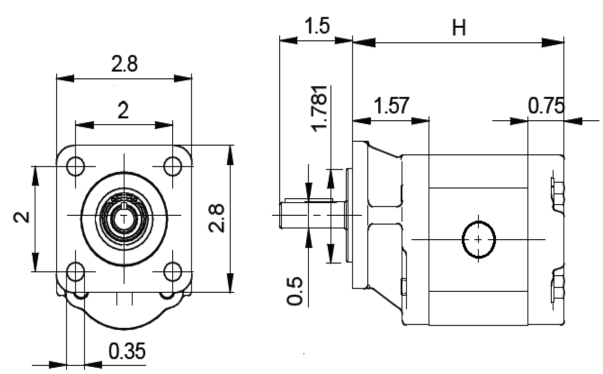
DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	MOUNTING	PART NO
0.091 *(1.4)*	0.71	5000	3625	SAE AA - 2 BOLT	6109 1030 2
				SAE AA - 4 BOLT	6109 1050 2
0.128 *(2.1)*	1.00	5000	3625	SAE AA - 2 BOLT	6109 1031 2
				SAE AA - 4 BOLT	6109 1051 2
0.158 *(2.8)*	1.23	4500	3625	SAE AA - 2 BOLT	6109 1032 2
				SAE AA - 4 BOLT	6109 1052 2
0.219 *(3.5)*	1.71	4500	3625	SAE AA - 2 BOLT	6109 1033 2
				SAE AA - 4 BOLT	6109 1053 2
0.256 *(4.1)*	1.99	4000	3625	SAE AA - 2 BOLT	6109 1034 2
				SAE AA - 4 BOLT	6109 1054 2
0.299 *(5.2)*	2.33	4000	3335	SAE AA - 2 BOLT	6109 1035 2
				SAE AA - 4 BOLT	6109 1055 2
0.354 *(6.2)*	2.76	3600	3140	SAE AA - 2 BOLT	6109 1036 2
				SAE AA - 4 BOLT	6109 1056 2
0.457 *(7.6)*	3.56	3300	2900	SAE AA - 2 BOLT	6109 1037 2
				SAE AA - 4 BOLT	6109 1057 2
0.57 *(9.3)*	4.44	3000	2610	SAE AA - 2 BOLT	6109 1038 2
				SAE AA - 4 BOLT	6109 1058 2
0.67 *(11)*	5.22	3000	2465	SAE AA - 2 BOLT	6109 1039 2
				SAE AA - 4 BOLT	6109 1059 2



1.5PE TANDEM PUMP



SAE AA - 2 BOLT
(R80S0 CODE)



SAE AA - 4 BOLT
(R83S1 CODE)

salami

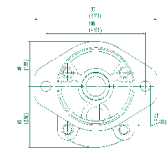
2PE SERIE

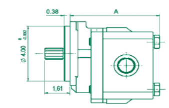
- CLOCKWISE ROTATION
- SAE A -2 BOLT MOUNTING
- INLET: SAE-12 OUTLET: SAE-10

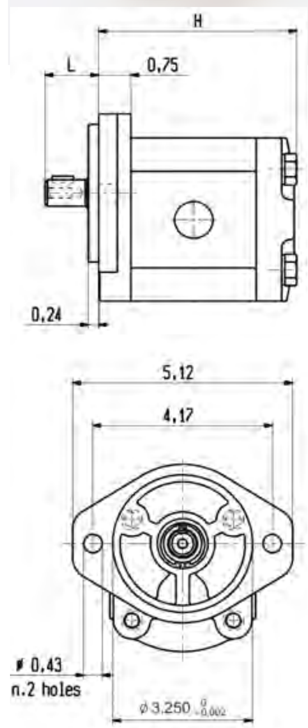
DISPLACEMENT in³ (cm³) / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	SHAFT	PART NO
0.27 *(4.5)*	2.1	4000	3600	5/8" STRAIGHT	6120 8164 2
				5/8-9T SPLINED	6120 3372 2
				3/4" STRAIGHT	6120 3757 2
				3/4-11T SPLINED	
0.40 *(6.5)*	3.12	4000	3600	5/8" STRAIGHT	6120 9594 2
				5/8-9T SPLINED	6120 9596 2
				3/4" STRAIGHT	6120 9595 2
				3/4-11T SPLINED	
0.50 *(8.3)*	3.9	3500	3600	5/8" STRAIGHT	6120 81662
				5/8-9T SPLINED	6120 8055 2
				3/4" STRAIGHT	6120 3542 2
				3/4-11T SPLINED	6120 3475 2
0.68 *(11.3)*	5.3	3500	3600	5/8" STRAIGHT	6120 8167 2
				5/8-9T SPLINED	6120 7904 2
				3/4" STRAIGHT	6120 3543 2
				3/4-11T SPLINED	6120 3512 2
0.84 *(13.8)*	6.55	3500	3600	5/8" STRAIGHT	6120 8168 2
				5/8-9T SPLINED	6120 8056 2
				3/4" STRAIGHT	6120 3544 2
				3/4-11T SPLINED	6120 3683 2
1.01 *(16)*	7.87	3000	3600	5/8" STRAIGHT	6120 8169 2
				5/8-9T SPLINED	6120 8309 2
				3/4" STRAIGHT	6120 3455 2
				3/4-11T SPLINED	6120 1808 2
1.15 *(19)*	8.96	3000	3140	5/8" STRAIGHT	6120 8170 2
				5/8-9T SPLINED	6120 7906 2
				3/4" STRAIGHT	6120 3456 2
				3/4-11T SPLINED	6120 3514 2
1.37 *(22.5)*	10.68	2750	2900	5/8" STRAIGHT	6120 8171 2
				5/8-9T SPLINED	6120 7907 2
				3/4" STRAIGHT	6120 3276 2
				3/4-11T SPLINED	6120 3532 2
1.58 *(26)*	12.31	2500	2600	5/8" STRAIGHT	6120 8172 2
				5/8-9T SPLINED	6120 7908 2
				3/4" STRAIGHT	6120 3457 2
				3/4-11T SPLINED	6120 8066 2

ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- TANDEM PUMPS & MULTIPLE PUMPS
- REAR COVERS WITH INTEGRATED VALVES
- OUTBOARD BEARING







5/8" STRAIGHT KEY CODE 82

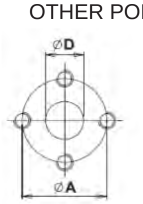
3/4" STRAIGHT KEY CODE 85

5/8-9T SPLINED CODE 52

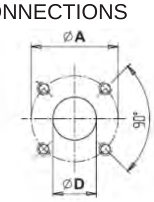
3/4-11T SPLINED CODE 54

P28P1 SHOWN

OTHER PORT CONNECTIONS

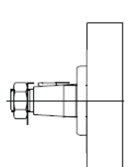


EUROPEAN FLANGE
CODE P



"BOSCH" FLANGE
CODE B

OTHER SHAFTS



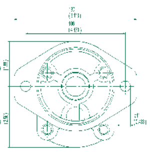
1:5 TAPERED CODE 25
1:8 TAPERED CODE 28

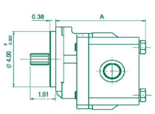
OTHER MOUNTING FLANGES

36.5MM PILOT DIA.
CODE P1

80MM PILOT DIA.
CODE B1

50MM PILOT DIA.
CODE B4/B5





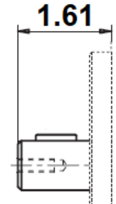
2.5PB SERIE

- CLOCKWISE ROTATION
- SAE B -2 BOLT MOUNTING

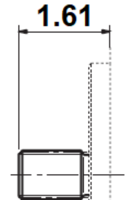
ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- TANDEM PUMPS & MULTIPLE PUMPS
- REAR COVERS WITH INTEGRATED VALVES

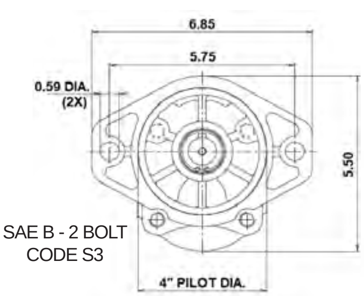
DISPLACEMENT in^3 (cm^3) / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	PORTS INLET	PORTS OUTLET	SHAFT	PART NO
0.36 (5.5)	2.81	3000	3600	SAE-12	SAE-10	7/8" STRAIGHT	ONLY FOR MULTIPLE 2.5PB REAR PUMPS
						7/8-13T SPLINED	
0.50 (8.3)	3.88	3000	3600			7/8" STRAIGHT	
						7/8-13T SPLINED	
0.72 (11.5)	5.61	3000				7/8" STRAIGHT	6138 xxxx x
						7/8-13T SPLINED	6138 7479 2
0.86 (13.8)	6.7	3000	3600			7/8" STRAIGHT	6138 xxxx x
						7/8-13T SPLINED	6138 7470 2
0.97 (16)	7.5	3000	3600			7/8" STRAIGHT	6138 7391 2
						7/8-13T SPLINED	6138 7390 2
1.17 (19)	9.1	3000	3600			7/8" STRAIGHT	6138 7393 2
						7/8-13T SPLINED	6138 7392 2
1.35 (22)	10.5	3000	3600			7/8" STRAIGHT	6138 7125 2
						7/8-13T SPLINED	6138 7117 2
1.53 (25)	11.9	3000	3600	SAE-16	SAE-12	7/8" STRAIGHT	6138 7373 2
						7/8-13T SPLINED	6138 7372 2
1.68 (28)	13	3000	3600			7/8" STRAIGHT	6138 7127 2
						7/8-13T SPLINED	6138 7119 2
1.97 (32)	15.3	3000	3300			7/8" STRAIGHT	6138 7128 2
						7/8-13T SPLINED	6138 7120 2
2.32 (38)	18	2750	2900			7/8" STRAIGHT	6138 7129 2
						7/8-13T SPLINED	6138 7121 2
2.69 (44)	20.9	2500	2465			7/8" STRAIGHT	6138 7130 2
						7/8-13T SPLINED	6138 7122 2



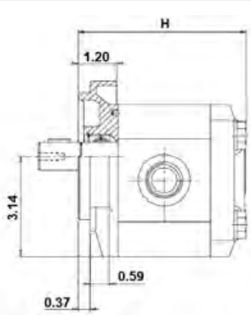
7/8" STRAIGHT KEY CODE 87

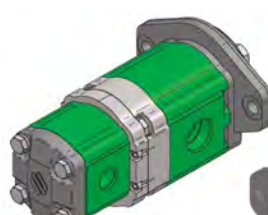


7/8-13T SPLINED CODE 55

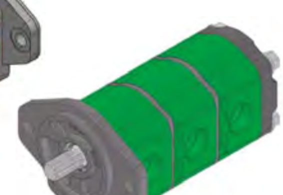


SAE B - 2 BOLT CODE S3



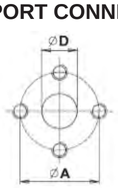


2.5PB/2PE COMBINATION



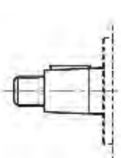
2.5PB TRIPLE PUMP

OTHER PORT CONNECTIONS

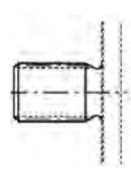


EUROPEAN FLANGE CODE P

OTHER SHAFTS



1:8 TAPERED CODE 38



3/4-11T SPLINED CODE 54

OTHER MOUNTING FLANGES

50.8mm PILOT CODE P2

SAE A - 2 BOLT, 3 1/4" PILOT CODE S2

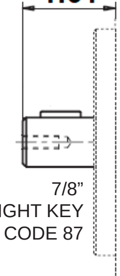
3PE SERIE

- CLOCKWISE ROTATION
- SAE B -2 BOLT MOUNTING

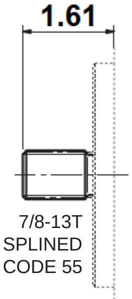
ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- TANDEM PUMPS & MULTIPLE PUMPS
- REAR COVERS WITH INTEGRATED VALVES

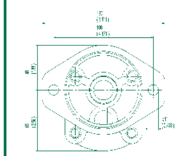
DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	PORTS INLET	PORTS OUTLET	SHAFT	PART NO
1.25 *(21)*	9.7	3000	3600	SAE-16	SAE-12	7/8" STRAIGHT	6130 1261 2
						7/8-13T SPLINE	6130 1111 2
1.65 *(27)*	12.8	3000	3600			7/8" STRAIGHT	6130 1262 2
						7/8-13T SPLINE	6130 1112 2
2.04 *(33)*	15.9	3000	3600			7/8" STRAIGHT	6130 1263 2
						7/8-13T SPLINE	6130 1103 2
2.36 *(38)*	18.4	3000	3600			7/8" STRAIGHT	6130 1264 2
						7/8-13T SPLINE	6130 1113 2
2.86 *(46)*	22.3	2750	3500	SAE-20	SAE-16	7/8" STRAIGHT	6130 1265 2
						7/8-13T SPLINE	6130 7967 2
3.30 *(55)*	25.7	2500	3190			7/8" STRAIGHT	6130 1266 2
						7/8-13T SPLINE	6130 1104 2
3.85 *(65)*	30	2500	2900			7/8" STRAIGHT	6130 1267 2
						7/8-13T SPLINE	6130 1114 2
4.48 (73.4)	34.9	2500	2610			7/8" STRAIGHT	6130 1268 2
						7/8-13T SPLINE	6130 1115 2

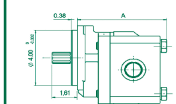


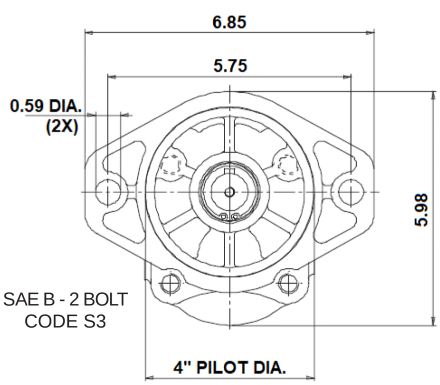
7/8" STRAIGHT KEY CODE 87



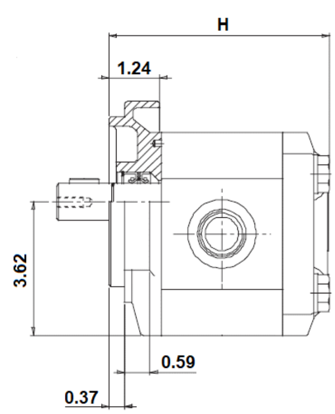
7/8-13T SPLINED CODE 55



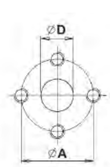




SAE B - 2 BOLT CODE S3



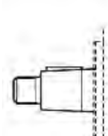
OTHER PORT CONNECTIONS



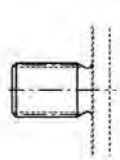
EUROPEAN FLANGE CODE P

CODE FLANGE 61 SALAMI CODE S

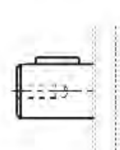
OTHER SHAFTS



1:8 TAPERED CODE 38

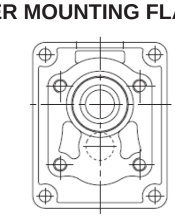


1-15T SPLINED CODE 56

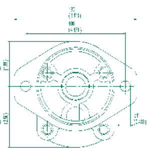


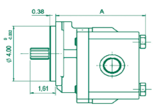
1" STRAIGHT KEY CODE 88

OTHER MOUNTING FLANGES



50.8mm PILOT CODE P2





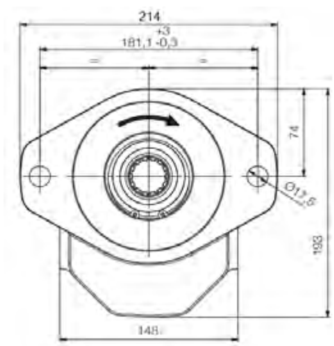
PLC SERIE

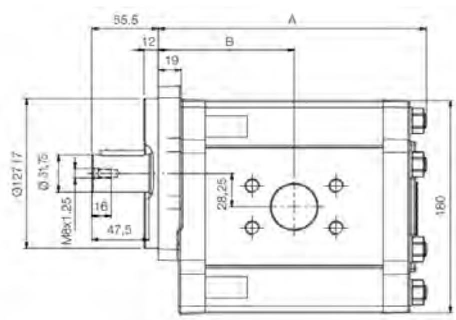
- CLOCKWISE ROTATION
- SAE B -2 BOLT MOUNTING
- 1 1/4" STRAIGHT KEY SHAFT

ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- SMALLER DISPLACEMENTS
- TANDEM PUMPS & MULTIPLE PUMPS

PART NO	DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	PORTS	
					INLET	OUTLET
1PLC 125D H09M	5.08 *(83)*	39.6	3000	3625	1 1/2" CODE FLANGE 61 (M12 THREAD)	1 1/4" CODE FLANGE 61 (M10 THREAD)
1PLC 150D H09M	6.1 *(100)*	47.5	3000	3625	2" CODE FLANGE 61 (M12 THREAD)	1 1/2" CODE FLANGE 61 (M12 THREAD)
1PLC 175D H09M	7.12 *(116)*	55.5	2500	3625		
1PLC 200D H09M	8.13 *(133)*	63.3	2000	2900		
1PLC 225D H09M	9.15 *(150)*	71.3	1750	2540		





CAST IRON GEAR PUMPS

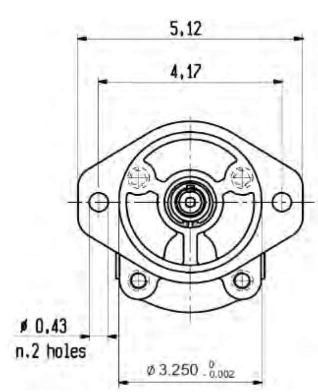
- SUPERIOR PERFORMANCE AND RELIABILTY IN HEAVY-DUTY HYDRAULIC APPLICATION
- CONSTRUCTION WITH LARGE AREA, LOW FRICTION BUSHINGS PROVIDE STRENGTH, HIGH EFFICIENCY AND LONG LIFE IN SEVERE OPERATING ENVIRONMENT
- THE DESIGN INCLUDE AN ADVANCED THRUST PLATE AND SEAL CONFIGURATION WHICH OPTIMIZES PERFORMANCE EVEN IN HIGH TEMPERATURE AND LOW VISCOSITY CONDITIONS

2PGE SERIE

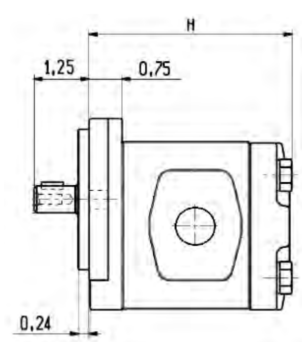
- CLOCKWISE ROTATION
- SAE A -2 BOLT MOUNTING
- 3/4" STRAIGHT KEY SHAFT

ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- REAR COVERS WITH INTEGRATED VALVES



PART NO	DISPLACEMENT IN^3 *(CM^3)* / REV.	GPM @ 1800 RPM	MAX RPM	MAX PSI	PORTS	
					INLET	OUTLET
6146 7087 8	1.01 *(16)*	7.87	3000	4350	SAE-12	SAE-10
6146 7088 8	1.18 *(19)*	8.96				
6146 7089 8	1.37 *(22.5)*	10.68	2750	4060	SAE-16	
6146 7090 8	1.58 *(26)*	12.31	2500	3750		



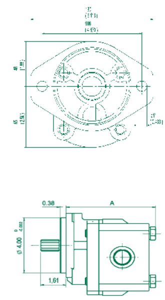
PG330 SERIE

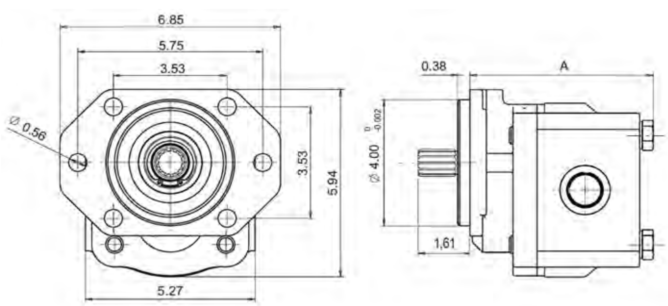
- CLOCKWISE ROTATION
- SAE B -2/4 BOLT MOUNTING
- 7/8-13T SPLINED SHAFT

ALSO AVAILABLE

- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- TANDEM PUMPS & MULTIPLE PUMPS
- OUTBOARD BEARING

PART NO	DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1000 RPM	MAX RPM	MAX PSI	PORTS	
					INLET	OUTLET
6151 0000 2	1.43 *(23)*	6.1	3000	3800	SAE-16	SAE-12
6151 0002 2	1.75 *(28)*	7.5		4000		
6151 0003 2	2.1 *(34)*	9		4000		
6151 0001 2	2.46 *(40)*	10.6	2700	3800		
6151 0004 2	2.89 *(46)*	12.5		4000	SAE-20	SAE-16
6151 0005 2	3.37 *(55)*	14.5		3800		
6151 0006 2	3.92 *(65)*	16.9	2500	3500		
6151 0007 2	4.48 *(75)*	19.2		3200		
6151 0008 2	4.91 *(80)*	21.2		2900		





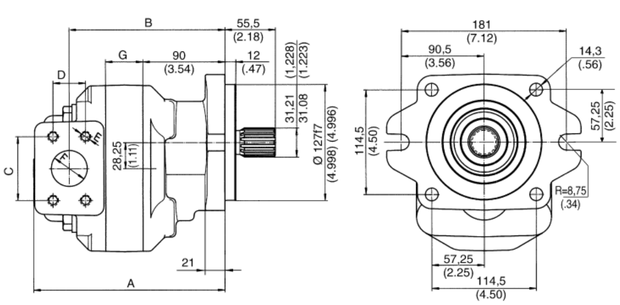
PNC SERIE

- CLOCKWISE ROTATION
- SAE C -2/4 BOLT MOUNTING
- 1 1/4-14T SPLINED SHAFT

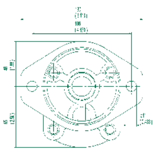
ALSO AVAILABLE

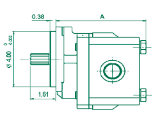
- SMALLER DISPLACEMENTS
- COUNTERCLOCKWISE ROTATION
- OTHER SHAFTS & FLANGES
- OUTBOARD BEARING
- TANDEM PUMPS & MULTIPLE PUMPS

PART NO	DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX RPM	MAX PSI	PORTS	
					INLET	OUTLET
1PNC 125 DG09M	5.08 *(83)*	39.58	3000	3500	1 1/2" CODE FLANGE 61 (M12 THREAD)	1 1/4" CODE FLANGE 61 (M10 THREAD)
1PNC 150 DG09M	6.1 *(100)*	47.53			2" CODE FLANGE 61 (M12 THREAD)	1 1/2" CODE FLANGE 61 (M12 THREAD)
1PNC 175 DG09M	7.11 *(116)*	55.48	2500	3200		
1PNC 200D G09M	8.13 *(133)*	63.35	2000	2850		
1PNC 225D G09M	9.15 *(150)*	71.3	1750	2500		



PUMPS





PTO PUMPS

- SLIPS ONTO TRACTOR PTO SHAFT (NO GEARBOX REQUIRED)
- 2000 PSI MAXIMUM PRESSURE
- BARBED ADAPTOR FOR HOSE INCLUDED
- FEMALE PIPE ADAPTOR FOR 3/4 NPT INCLUDED

PART NUMBER	HP @ 2000 PSI	2000 PSI		INLET	OUTLET	SHAFT	DIM E
		RPM	GPM				
HC-PTO-1A	32	540	21	SAE 16	SAE 12	1 3/8 - 6 T	6.35"
HC-PTO-9A	27		17				5.97"
HC-PTO-2A	18		11				5.60"
HC-PTO-7A	12		7				5.23"
HC-PTO-3A	34	1000	22.5			1 3/8 - 21 T	5.60"
HC-PTO-8A	27		13.5				5.23"

GEAR BOX / PUMP ASSEMBLY

- SLIPS ONTO 540 RPM TRACTOR PTO SHAFTS
- ADAPTS TO 1 3/8 - 6T SPLINE SHAFT
- OTHER PUMPS FLOW AVAILABLE UPON REQUEST

PART NUMBER	HP @ 2000 PSI	GPM	MAX PSI	INLET	OUTLET
2.5PB-PTO-38D	25.4	19.2	2500	SAE 16	SAE 12
2.5PB-PTO-32D	21.4	16.3	3300		
2.5PB-PTO-22D	14.7	11	3600		

2 STAGE PUMPS

- IDEAL FOR LOGSPLITTERS
- CLOCKWISE ROTATION
- 3600 RPM MAX SPEED
- UNLOAD PRESSURE SET TO 650 PSI (400-900 PSI RANGE)
- 1" TUBE INLET

PART NO	GPM @ 3600 RPM		SHAFT	MOUNTING FLANGE	OUTLET PORT
	HIGH SPEED LOW PRESSURE	LOW SPEED HIGH PRESSURE			
CBN-8.8/3.0	11	2.8	1/2 KEYED	SAE AA - 4 BOLT	1/2 NPT
CBN-13/4.2	16	4			
CBDN-16/7	22	6	5/8 KEYED	SAE A - 2 BOLT	3/4 NPT
CBDN-22/7	28	6			

HAND PUMPS - WHP TYPE

- 3500 PSI MAXIMUM PRESSURE
- "SA" SERIES IS SINGLE ACTING
- "DA" SERIES HAVE A BUILT IN DIRECTIONAL CONTROL VALVE
- 2.1 CUBIC INCH PER CYCLE (ONE UP AND ONE DOWN)

PART NUMBER	DESCRIPTION
WHP-21-DA	2.1 CUBIC INCH DOUBLE ACTING HEAD
WHP-21-SA	2.1 CUBIC INCH SINGLE ACTING HEAD
WHP-T-300	STEEL RESERVOIR, 1.3 GALLONS
WHP-T-180	STEEL RESERVOIR, 0.8 GALLON

PUMPS

VANE PUMPS V10/V20 SERIES

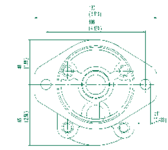
- FULLY INTERCHANGEABLE WITH VICKERS

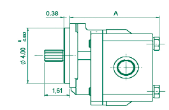
ALSO AVAILABLE

- OTHER TYPE OF SHAFTS, PORTS
- COUNTERCLOCKWISE ROTATION
- PRIORITY REAR COVER


V10


V20





PART NO	GPM @ 1800 RPM	MAX		PORT SIZE		SHAFT	MOUNTING
		RPM	PSI	INLET	OUTLET		
V10-1S1S-1C20	1.5	4800	2500	SAE-16	SAE-08	3/4 KEY	SAE A 2 BOLT
V10-1S2S-1C20	3	4500					
V10-1S3S-1C20	4.5	4000					
V10-1S4S-1C20	6	3400					
V10-1S5S-1C20	7.5	3200					
V10-1S6S-1C20	9	3000	2200				
V10-1P7S-1C20	10.5	2800	2000				
V20-1S7S-1C11	10.5	3000	2500	SAE-20	SAE-12		
V20-1S9S-1C11	13.5	2800					
V20-1S11S-1C11	16.5	2400					
V20-1P13P-1C11	19.5						

VANE PUMPS 25VQ/35VQ/45VQ SERIES

- FULLY INTERCHANGEABLE WITH VICKERS

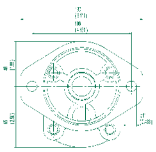
ALSO AVAILABLE

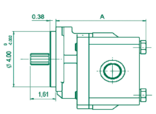
- OTHER TYPE OF SHAFTS, PORTS
- COUNTERCLOCKWISE ROTATION
- DOUBLE & TRIPLE PUMPS


35VQ


3525VQ

PART NO	GPM @ 1800 RPM	MAX		PORT SIZE		SHAFT	MOUNTING
		RPM	PSI	INLET	OUTLET		
25VQ12A-1C17	18	2700	3000	1 1/2 CODE FLANGE 61	1" CODE FLANGE 61	7/8 KEY	SAE B 2 BOLT
25VQ14A-1C18	21						
25VQ17A-1C19	25	2500					
25VQ21A-1C20	31.5						
35VQ25A-1C20	37.5	2500		2" CODE FLANGE 61	1 1/4 CODE FLANGE 61	1 1/4 KEY	SAE C 2 BOLT
35VQ30A-1C20	45						
35VQ35A-1C20	52.5	2400					
35VQ38A-1C20	57						
45VQ42A-1C20	63	2200	2500	3" CODE FLANGE 61	1 1/2 CODE FLANGE 61		
45VQ50A-1C20	75						
45VQ60A-1C20	90						



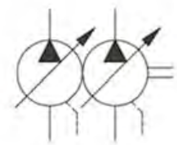


VP SINGLE OR DOUBLE VARIABLE DISPLACEMENT VANE PUMPS

- FULLY ADJUSTABLE FLOW AND PRESSURE COMPENSATOR. HIGH EFFICIENCY, LOW TEMPERATURE AND ENERGY-SAVING DESIGN.
- VERY LOW NOISE, QUICK RESPONSE AND STEADY OPERATION.
- ADJUSTMENT SCREWS FOR BOTH PRESSURE SETTING AND MAXIMUM FLOW SETTINGS.
- WIDELY USED IN LATHE, INJECTION MACHINES.
- DURABLE, LONG LIFE, LOW VOLUME AND SMALL FOOTPRINT (SPACE SAVING).

SPEED : MINIMUM : 800 RPM, MAXIMUM : 1800 RPM.
DRAIN MUST BE INSTALLED UNDER OIL LEVEL AND BELOW 7 PSI.
PIPE LENGTH SHOULD BE SHORTER THAN 3 FT.
INDEPENDENT RETURN LINE TO TANK REQUIRED.

Symbol



VARIABLE DISPLACEMENT "LOAD SENSING" PISTON PUMPS

TXV SERIE

LEDUC TXV PUMPS ARE INTELLIGENT PUMPS!

THEY AUTOMATICALLY REGULATE TO GIVE JUST WHAT IS NEEDED FOR EACH MOVEMENT. SPECIFICALLY DESIGNED FOR THE NEEDS OF THE TRUCK HYDRAULIC MARKET, THE TXV PUMPS ARE PARTICULARLY ATTRACTIVE SOLUTIONS FOR APPLICATIONS IN LOADING CRANES, FORESTRY CRANES, REFUSE VEHICLES, SALT SPREADERS, SNOW EQUIPMENT AND CONSTRUCTION EQUIPMENT VEHICLES.

EXTREMELY COMPACT IN SIZE (ONLY 125MM WIDE) TO ALLOW DIRECT FLANGE-MOUNTING POWER TAKE-OFF (PTO).

DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX	
		PSI	RPM
2.44 *(40)*	18.9	5880	3000
3.66 *(60)*	28.4	5880	2600
4.57 *(75)*	35.6	5880	2000
5.61 *(92)*	43.7	5880	1900
7.32 *(120)*	57.0	5290	2100
7.93 *(130)*	61.8	5290	2100
7.93 *(150)*	71.2	4550	2000

A10V SWASHPLATE AXIAL PISTON PUMPS

TECHNICAL SPECIFICATIONS

- SWASHPLATE AXIAL PISTON PUMP
- GOOD SUCTION CHARACTERISTICS
- COMPACT, LIGHTWEIGHT, LOW NOISE
- LONG SERVICE LIFE, HIGH PRECISION BEARINGS
- AXIAL AND RADIAL LOAD CAPACITY

MAXIMUM OPERATING PRESSURE

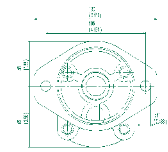
NOMINAL: 4060 PSI (280 BAR)

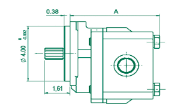
INTERMITTENT: 4560 PSI (315 BAR)

PEAK: 5075 PSI (350 BAR)

MAXIMUM CASE DRAIN PRESSURE: 29 PSI (2 BAR)

SUCCION PRESSURE RANGE: 11.6 - 435 PSI (0.8 - 30 BAR) ABSOLUTE





FEATURES

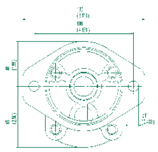
- PRESSURE COMPENSATOR WITH LOAD SENSE CONTROL (DFR)
- VOLUME STOP
- CLOCKWISE ROTATION
- SIDE PORTS WITH CODE 61 FLANGES
- BUNA SEALS

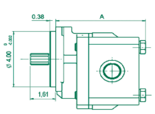
ALSO AVAILABLE

- MANY CONTROLS SUCH AS: REMOTE COMPENSATOR (DRG) AND COMPENSATOR WITH HORSEPOWER LIMITER (DFLR)
- COUNTERCLOCKWISE ROTATION
- END PORTS WITH CODE 61 OR 62 FLANGES
- VITON SEALS
- OTHER MOUNTING FLANGES AND SHAFTS

DISPLACEMENT in^3 *(cm^3)* / rev.	GPM @ 1800 RPM	MAX RPM	MOUNTING FLANGE	PORTS CODE FLANGE 61	DRAIN PORT	SHAFT	PART NO
1.1 *(18)*	8.5	3300	SAE-A 2 BOLT	INLET: 1" OUTLET: 3/4"	SAE-06	3/4" KEY	A10VS0-18-DFR-31-R-P-K-C62N00
						3/4-SPLINE	A10VS0-18-DFR-31-R-P-S-C62N00
1.71 *(28)*	13	3000	SAE-B 2 BOLT	INLET: 1 1/4" OUTLET: 1"	SAE-08	7/8" KEY	A10VS0-28-DFR-31-R-P-K-C62N00
						7/8" SPLINE	A10VS0-28-DFR-31-R-P-S-C62N00
2.75 *(45)*	21	2600		INLET: 1 1/2" OUTLET: 1"	SAE-10	1" KEY	A10VS0-45-DFR-31-R-P-K-C62N00
						1" SPLINE	A10VS0-45-DFR-31-R-P-S-C62N00
4.33 *(71)*	33.5	2200	SAE-C 2 BOLT	INLET: 2" OUTLET: 1"	SAE-10	1 1/4" KEY	A10VS0-71-DFR-31-R-P-K-C62N00
						1 1/4" SPLINE	A10VS0-71-DFR-31-R-P-S-C62N00
6.10 *(100)*	47	2000		INLET: 2 1/2"	SAE-12	1 1/2" KEY	A10VS0-100-DFR-31-R-P-K-C62N00
				OUTLET: 1 1/4"		1 1/2" SPLINE	A10VS0-100-DFR-31-R-P-S-C62N00
8.54 *(140)*	66.5	1800	SAE-D 4 BOLT	INLET: 2 1/2"	SAE-12	1 3/4" KEY	A10VS0-140-DFR-31-R-P-K-C62N00
				OUTLET: 1 1/4"		1 3/4" SPLINE	A10VS0-140-DFR-31-R-P-S-C62N00

HANSA-TMP





TPV 1000

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

FEATURES:

- HIGH ROTATION SPEED
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY

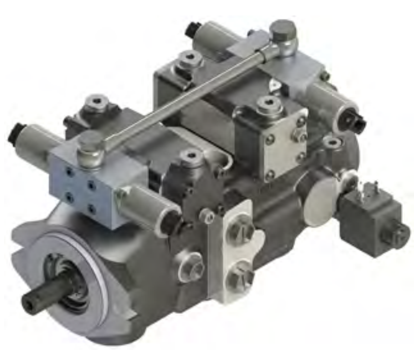
ACCESSORIES:

- BY-PASS VALVE
- CONTROL LEVER WITH OR WITHOUT RETURN SPRING
- HYDRAULIC SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- PURGE VALVE
- SAE-A OR SAE-B (ONLY SERVO) MOUNTING
- SCREW BY-PASS

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
6 *(0.37)*, 8 *(0.49)*, 9 *(0.55)*, 11 *(0.67)*, 12 *(0.73)*, 13 *(0.79)*	*3045*	*4350*	3600	8,8 *(19)*
15 *(0.9)*, 17 *(1.0)*		*4060*		
18 *(1.1)*		*3915*		
19 *(1.2)*, 21 *(1.3)*	*2900*	*3625*	3200	

TPV 1200 BTB

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON COMPACT TANDEM PUMPS



FEATURES:

- LOW NOISE LEVEL
- HIGH ROTATION SPEED
- COMPACT DESIGN AND REDUCED LENGTH
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY

ACCESSORIES:

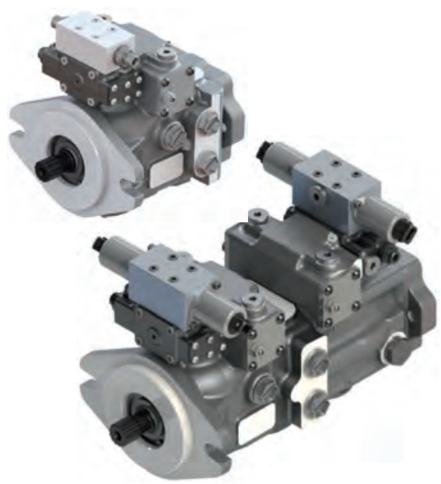
- AUXILIARY GEAR PUMPS GROUP 1-2
- CONTROL LEVER WITH OR WITHOUT RETURN SPRING
- HYDRAULIC SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- MAN ON BOARD
- PURGE VALVE
- SAE-A OR SAE-B (ONLY SERVO) MOUNTING
- SCREW BY-PASS

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
6 *(0.37)*, 8 *(0.49)*, 9 *(0.55)*, 11 *(0.67)*, 12 *(0.73)*, 13 *(0.79)*	*3045*	*4350*	3600	19 *(42)*
15 *(0.9)*, 17 *(1.0)*		*4060*		
18 *(1.1)*		*3915*		
19 *(1.2)*, 21 *(1.3)*	*2900*	*3625*	3200	

TPV - TPVTC 1500

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

NEW PRODUCTS

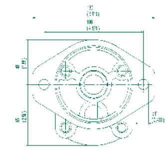


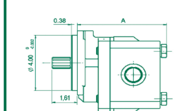
FEATURES:

- LOW NOISE LEVEL
- HIGH ROTATION SPEED
- HIGH POWER DENSITY
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY
- BUILT-IN PRESSURE RELIEF VALVES

ACCESSORIES:

- AUXILIARY GEAR PUMPS GROUP 2 SAE-A
- HYDRAULIC SERVO-CONTROL
- HYDRAULIC SERVO-CONTROL WITH FEED BACK
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL WITH FEED BACK
- MANUAL LEVER SERVO-CONTROL WITH FEED BACK
- MAN ON BOARD
- PURGE VALVE
- SAE-B MOUNTING
- SCREW BY-PASS
- SENSORS AND TRANSDUCERS AVAILABLE ON REQUEST





DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
17 *(1.0)*, 18 *(1.1)*, 19 *(1.2)*, 21 *(1.3)*	*5075*	*5800*	3600	14 *(31)*

TPV 3200

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

FEATURES:

- HIGH ROTATION SPEED
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY

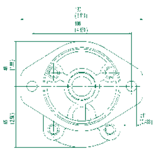
ACCESSORIES:

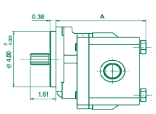
- MANUAL DISPLACEMENT SERVO-CONTROL
- HYDRAULIC PROPORTIONAL SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- AUTOMOTIVE
- SPECIAL VERSIONS
- SAE-B MOUNTING

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
21 *(1.3)*, 28 *(1.7)*	*3625*	*5075*	3600	22 *(48)*

TPV - TPVT 3600

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS





FEATURES:

- LOW NOISE LEVEL
- HIGH ROTATION SPEED
- HIGH POWER DENSITY
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY
- BUILT-IN PRESSURE RELIEF VALVES

ACCESSORIES:

- AUXILIARY GEAR PUMPS GROUP 2 SAE-A AND GROUP 3 SAE-B
- HYDRAULIC SERVO-CONTROL
- HYDRAULIC SERVO-CONTROL WITH FEED BACK
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL WITH FEED BACK
- MANUAL LEVER SERVO-CONTROL WITH FEED BACK
- MAN ON BOARD
- PURGE VALVE
- SAE-B MOUNTING
- SCREW BY-PASS
- PRESSURE CUT-OFF
- SENSORS AND TRANSDUCERS AVAILABLE ON REQUEST

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
26 *(1.6)*, 28 *(1.7)*, 30 *(1.8)*, 31 *(1.9)*, 32 *(2.0)*, 34 *(2.1)*, 36 *(2.2)*, 38 *(2.3)*	*5075*	*6525*	3600	28 *(62)*

TPV 4300

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

FEATURES:

- HIGH ROTATION SPEED
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY
- BUILT-IN PRESSURE RELIEF VALVES

ACCESSORIES:

- HYDRAULIC SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- SAE-B MOUNTING
- MAN ON BOARD
- SCREW BY-PASS
- SPECIAL VERSIONS

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
32 *(2.0)*, 38 *(2.3)*, 45 *(2.7)*, 50 *(3.1)*	*3625*	*5057*	3600	23 *(51)*

TPV 5000

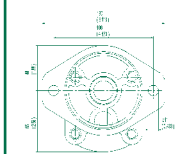
VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

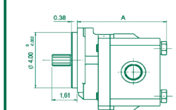
FEATURES:

- HIGH ROTATION SPEED
- COMPACT DESIGN
- SUITABLE FOR MULTIPLE PUMP ASSEMBLY

ACCESSORIES:

- MANUAL DISPLACEMENT SERVO-CONTROL
- HYDRAULIC PROPORTIONAL SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- AUTOMOTIVE
- SPECIAL VERSIONS
- SAE-B MOUNTING





DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
46 *(2.8)*, 50 *(3.1)*, 64 *(3.9)*	*4350*	*5800*	3600	29 *(64)*

TPV 9000

VARIABLE DISPLACEMENT CLOSED LOOP SYSTEM AXIAL PISTON PUMPS

FEATURES:

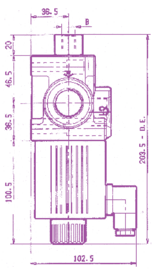
- HIGH ROTATION SPEED
- HIGH PRESSURE
- HIGH PERFORMANCES
- COMPACT DESIGN

ACCESSORIES:

- MANUAL DISPLACEMENT SERVO-CONTROL
- HYDRAULIC PROPORTIONAL SERVO-CONTROL
- ELECTRO-PROPORTIONAL SERVO-CONTROL
- SAE-C MOUNTING

DISPLACEMENT in³ (cm³) / rev.	RATED PRESSURE PSI	PEAK PRESSURE PSI	MAXIMUM RPM	WEIGHT KG *(LB)*
55 *(3.4)*	*5800*	*6525*	4000	55 *(121)*
72 *(4.4)*			4100	68 *(150)*
90 *(5.5)*			4000	
110 *(6.7)*			3800	

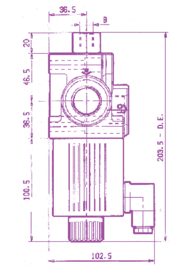
VALVES



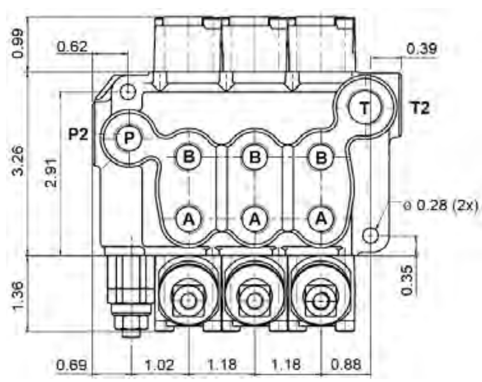
FLOW	MODEL (SPOOL)	MAX PRESSURE	BRAND	PAGE
5.2 GPM	BM20 (1-7)	4700 PSI	bb hydraulic	77
10.5 GPM	BF40 (1-6)	4700 PSI	bb hydraulic	82
12 GPM	MB2 (1)	3600 PSI	YOULI	77
12 GPM	MB3 (2-7)	4600 PSI	YOULI	78
12 GPM	VDM6A (1-7)	5400 PSI	salami	79
13 GPM	BM50 (8)	4700 PSI	bb hydraulic	78
15 GPM	VDM6	5000 PSI	salami	79
16 GPM	MB4 (1-6)	4600 PSI	YOULI	80
18.5 GPM	BF70 (1-6)	4700 PSI	bb hydraulic	82
20 GPM	RD500 & RD2500 (1-3)	3000 PSI	Prince	81
21 GPM	MB5 (1-6)	4600 PSI	YOULI	80
24 GPM	BF90 (1)	4700 PSI	bb hydraulic	82
24 GPM	VDM8 (1-5)	5000 PSI	salami	82
26 GPM	BM100 (1-3)	4700 PSI	bb hydraulic	83
40 GPM	BM150 (1)	4700 PSI	bb hydraulic	83
40 TO 48 GPM	BMWINCH	4700 PSI	bb hydraulic	83
48 GPM	BM180 (1)	4700 PSI	bb hydraulic	83

BM20 MANUAL VALVES

- OUR SMALLEST MANUAL VALVE
- ZINC COATED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER
- POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI



PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
902457	1	5.2	4700	P, T, A, B: SAE-06 P2 & T2: SAE-08
902458	2			
902459	3			
90211008	4			
90211009	5			
902110010	6			
902110011	7			



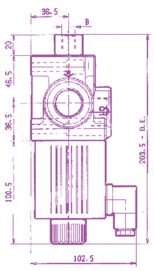
MB2 MANUAL VALVES

- BLACK PAINTED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI
- OPEN CENTER ONLY, NO POWER BEYOND

FITS "SD4" WALVOIL FOOTPRINT

LOTS OF OPTIONS AVAILABLE

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
MB2/1S-3/18L/E8-M1	1	12	3600	SAE-08



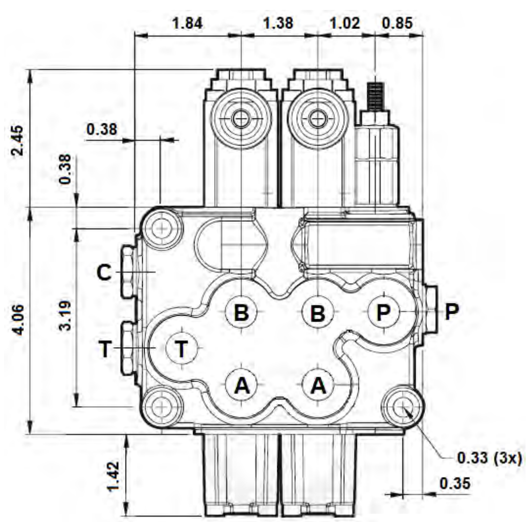
MB3 MANUAL VALVES

- BLACK PAINTED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER
- POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

FITS "SD5" WALVOIL FOOTPRINT

LOTS OF OPTIONS AVAILABLE

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
MB3/1S-3/18L/E8-M1	1	12	4600	SAE-08
MB3/2S-3/18L/E8-M2	2			
MB3/3S-3/18L/E8-M3	3			
MB3/4S-3/18L/E8-M4	4			
MB3/5S-3/18L/E8-M5	5			
MB3/6S-3/18L/E8-M6	6			
MB3/7S-3/18L/E8-M7	7			



ALSO AVAILABLE

- MOTOR AND SINGLE ACTING
- DETENT, FLOAT CONTROLS
- ELECTRIC, AIR AND CABLE CONTROLS
- 2 AXIS JOYSTICK
- LIMIT SWITCH

BM50 8 SPOOL MANUAL VALVES

- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
BM50/8	8	13	4700	SAE-08
BM50/8+2 JOYSTICK				

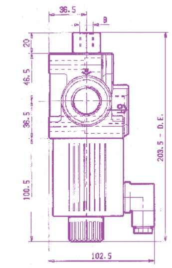
VDM6 MANUAL VALVES

- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN / CLOSED CENTER, POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET AT 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
623100110	1	15	5000	P, A & B: SAE-08 T: SAE-10
623100120	2			
623100130	3			
623100140	4			
623100150	5			
623100160	6			
623105500	7			

623100131

623108190



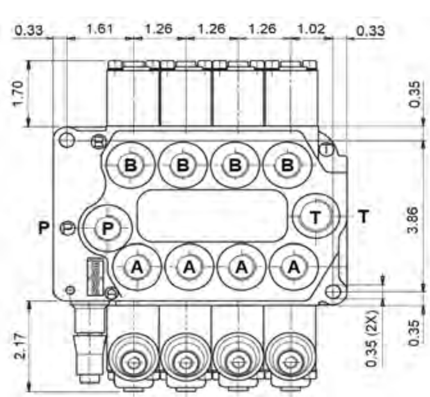
OTHER POPULAR VALVES

PART NUMBER	DESCRIPTION
623108010	1 D.A. SPOOL ELECTRIC 12V WITH LEVERS
623106980	2 D.A. SPOOLS ELECTRIC 12V WITH LEVERS
623106330	1 D.A. DETENT KICK-OUT SPOOL, 1 S.A SPOOL
623107980	1 FLOATING SPOOL, 1 D.A. SPOOL C/W JOYSTICK
623108191	7 SPOOL D.A C/W 2 JOYTSICK, SAE-06 ON A &B PORTS

623106980

POPULAR PARTS

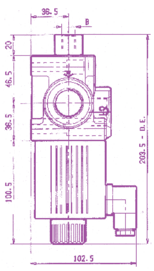
PART NUMBER	DESCRIPTION
R23400320	DETENT KIT IN & OUT
R23400210	SPOOL SEAL KIT (PER SPOOL)
R23400221	SPRING RETURN KIT
R23400060	LEVER BOX
795428901	POWER BEYOND & CLOSE CENTER PLUG



VDM6A MANUAL VALVES

- LOADCHECK ON EVERY SECTION
- POSSIBILITY FOR PORT RELIEFS
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

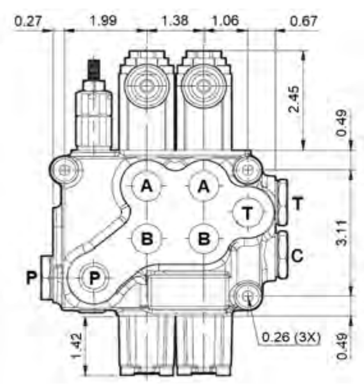
PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
625033600	2	12	5400	P, A & B: SAE-08 T: SAE-10
625033700	3			
625033800	4			
625034100	5			
625034200	6			
625034300	7			



MB4 MANUAL VALVES

- BLACK PAINTED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
MB4/1S-3/18L/E8-M3	1	16	4600	SAE-08
MB4/2S-3/18L/E8-M3	2			
MB4/3S-3/18L/E8-M3	3			
MB4/4S-3/18L/E8-M3	4			
MB4/5S-3/18L/E8-M3	5			
MB4/6S-3/18L/E8-M3	6			



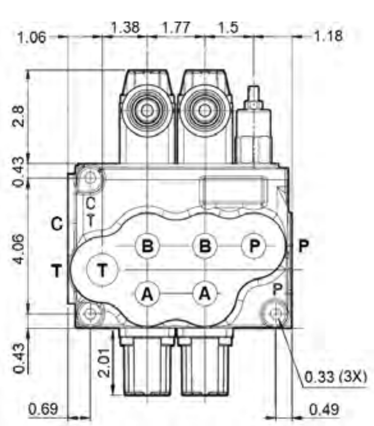
FITS "HCD10"
HYDROCONTROL FOOTPRINT

LOTS OF OPTIONS AVAILABLE

MB5 MANUAL VALVES

- BLACK PAINTED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
MB5/1S-3/18L/E8-M3	1	21	4600	P&T:SAE-12 A&B:SAE-10
MB5/2S-3/18L/E8-M3	2			
MB5/3S-3/18L/E8-M3	3			
MB5/4S-3/18L/E8-M3	4			
MB5/5S-3/18L/E8-M3	5			
MB5/6S-3/18L/E8-M3	6			



FITS "SD11"
WALVOIL FOOTPRINT

LOTS OF OPTIONS AVAILABLE

RD500 & RD2500 MANUAL VALVES

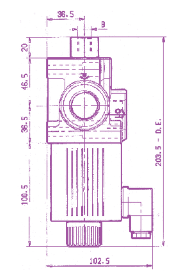
- 3000 PSI MAXIMUM PRESSURE
- DOUBLE ACTING SPOOLS

PART NO	NB. OF SPOOL	GPM MAX	PORTS	DESCRIPTION	GRESEN/ PARKER EQUIVALENT
RD2575-T4-ESA1	1	20	P&T: 3/4 NPT A&B: 1/2 NPT	SPRING RETURN	400
RD2575-T4-EDA1				3 POSITION DETENT	410
RD512-CA-5A4B1		30		SPRING RETURN	SP-4-HP
RD512-GC-5A4B1				FLOAT DETENT	SPK-4-HP
RD516-CA-5A4B1			P&T: SAE-12 A&B: SAE-10	SPRING RETURN	SP-4-4-HP
RD526-CCAA-5A4B1	2	25			
RD522-CCAA-5A4B1			P&T: 3/4 NPT A&B: 1/2 NPT		
RD532-CCCAAA-5A4B1	3				SP-4-4-4-HP
RD536-CCCAAA-5A4B1			P&T: SAE-12 A&B: SAE-10		

RD25

RD52

RD53



LOG SPLITTER MANUAL VALVES

PART NO	NB. OF SPOOL	GPM MAX	PSI MAX	PORTS	DESCRIPTION
LS-3000-1	1	25	2750	P&T: 3/4 NPT A&B: 1/2 NPT	PRESSURE RELEASE DETENT, SPOOL OUT POSITION
LS-3000-2				3/4 NPT	
LSV-3000-1			3000	P&T: 3/4 NPT A&B: 1/2 NPT	
RD512-CF-5A4B1		30	3000	P&T: 3/4 NPT A&B: 1/2 NPT	PRESSURE RELEASE DETENT, BOTH POSITION
RD512-CF-5A4B1					PRESSURE RELEASE DETENT, SPOOL OUT POSITION, C/W POWER BEYOND
RD522-CCEA-5A4B1	2				1ST SPOOL: PRESSURE RELEASE DETENT, BOTH POSITION ON 2ND SPOOL: D.A., SPRING RETURN
RD522-CCEE-5A4B1					1ST & 2ND SPOOL: PRESSURE RELEASE DETENT, SPOOL OUT POSITION
RD525-MMEE-5A4B1				P&T: SAE-12 A&B: SAE-10	AUTO-CYCLE C/W POWER BEYOND

LS-3000

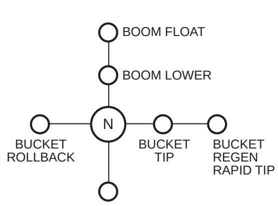
LSV-3000-1

LOADER APPLICATION VALVES

- 2 SPOOLS MOUNTED ON A JOYSTICK
- LOAD CHECK ON EACH SECTION
- 1ST SPOOL IS DOUBLE ACTING WITH FLOAT
- 2ND SPOOL IS DOUBLE ACTING WITH REGEN

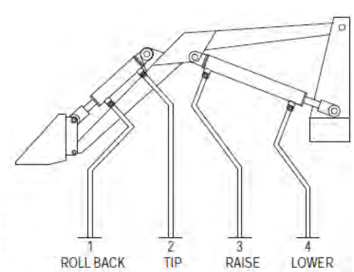
JOYSTICK HANDLE

THE JOYSTICK HANDLE WILL OPERATE BOTH SPOOLS USING ONE LEVER HANDLE. THE TWO SPOOLS CA BE OPERATED INDEPENDENTLY OR AT THE SAME TIME DEPENDING UPON HANDLE MOVEMENT. BACAUSE WE ALLOW FOR MAXIMUM MOUNTING FLEXIBILITY, WE HAVE 4 OPTIONS FOR THE LVS AND 4 OPTIONS FOR THE LVR. THE HANDLE SHIFT PATTERN FOR ALL IS SHOWN AT RIGHT.

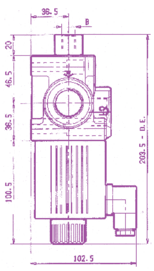


JOYSTICK HANDLE OPERATION LOOKING AT HANDLE KNOB

LVS



PART NO	NB. OF SPOOL	GPM MAX	PSI MAX	PORTS
LVS-1-A-GR-5-A-1	2	11	3000	P&T: SAE-08 A&B: SAE-06



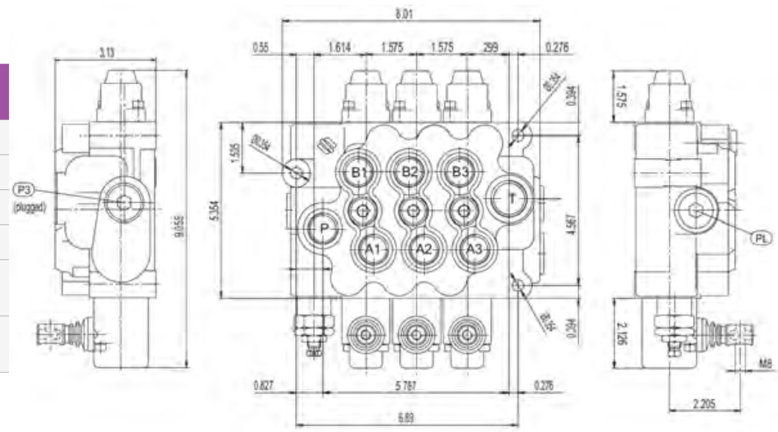
VDM8 MANUAL VALVES

- LOADCHECK ON EVERY SECTION
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
623200110	1	24	5000	P, A & B: SAE-10 T: SAE-12
623200120	2			
623200130	3			
623200140	4			
623200150	5			

POPULAR PARTS

PART NUMBER	DESCRIPTION
R23500300	DETENT KIT IN & OUT
R20272590	SPOOL SEALKIT (PER SPOOL)
R23575070	SPRING RETURN KIT
R20287910	LEVERBOX
795428901	POWER BEYOND/ CLOSED CENTER (VALVE)
795429300	POWER BEYOND/ CLOSED CENTER (2+ SPOOL VALVE)

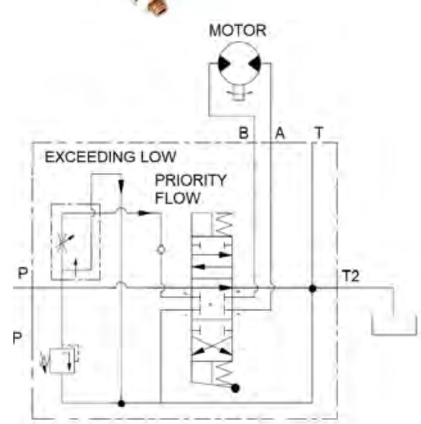


BF40, BF70 & BF90 MANUAL VALVES

INTEGRATED PRESSURE COMPENSATED FLOW CONTROL (SEND EXCESS FLOW TO TANK)

- ZINC COATED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

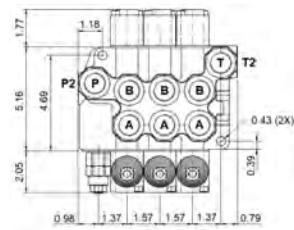
PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
91411013	1	10.5	4700	SAE-08
914394	2			
91411014	3			
91411015	4			
91411016	5			
91411017	6			
93811005	1	18.5	4700	P, A & B: SAE-10 T: SAE-12
93811006	2			
93811007	3			
93811008	4			
93811009	5			
9381005	1	24	4700	SAE-10

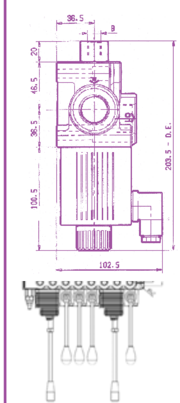


BM100 MANUAL VALVES

- ZINC COATED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
93011006	1	26	3600	SAE-12
93011008	2			
93011009	3			





BM150 MANUAL VALVES

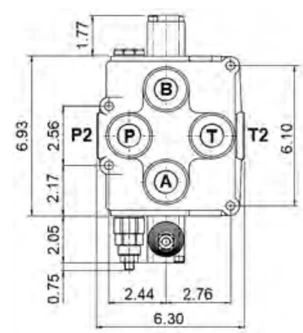
- ZINC COATED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
92511004	1	39	3600	P, T, A & B: SAE-12 P2 & T2: SAE-16

BM180 MANUAL VALVES

- ZINC COATED
- DOUBLE ACTING SPOOL, SPRING RETURN WITH LEVERS
- OPEN/CLOSED CENTER. POWER BEYOND OPTION
- HANDLES INCLUDED
- RELIEF SET TO 2550 PSI

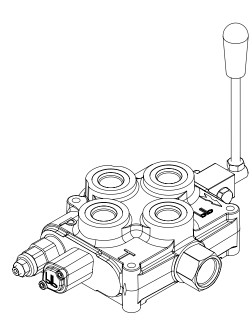
PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
925603	1	45	3600	SAE-16



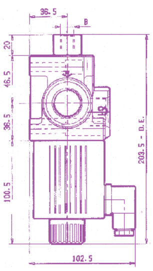
BM150/BM180 WITH ROTARY LEVERS

- SPECIALLY DESIGNED FOR WINCHES
- COATING PROTECTION AGAINST SALT ATMOSPHERE CORROSION
- FICTION CONTROL DETENTED IN ALL POSITIONS

PART NUMBER	SERIE	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
925164	BM150	1	37	3600	SAE-12
925604	BM180		45		SAE-16



DIRECTIONAL VALVES SECTIONAL TYPE



MAX GPM	MAX PSI	NB OF SPOOL	MODEL	BRAND	PAGE
12	5100	1 - 8	VD6A	salami	85
13	4600	1 - 12	SN-3	YOULI	90
20	5100	1 - 8	VD8A	salami	86
20	3500	1 - 10	V20	Prince	87
21	4600	1 - 12	SN-4	YOULI	90
32	4600	1-12	SN-5	YOULI	90
37	4000	1 - 8	VD10A	salami	88
37	4600	1 - 12	SN-6	YOULI	91
63	4000	1 - 18	VD12A	salami	89
63	4600	1 - 12	SN-8	YOULI	91

VD6A MANUAL VALVES

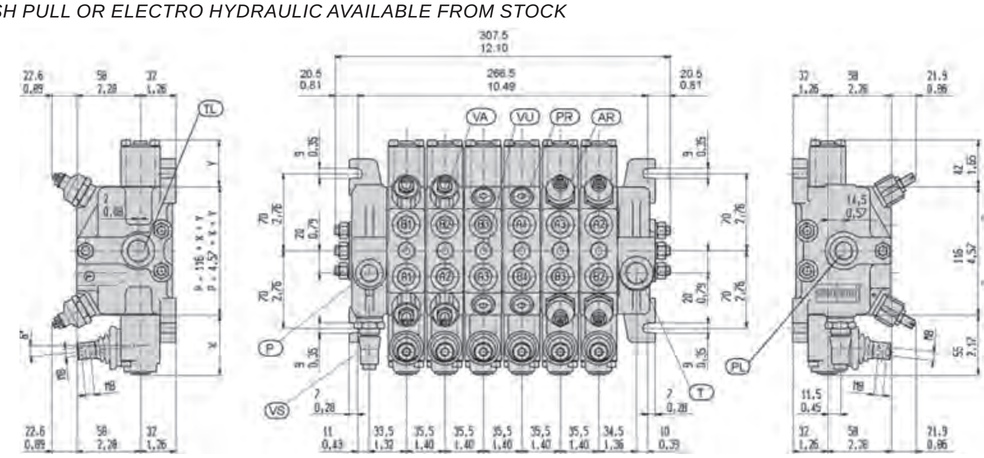
PART NUMBER	DESCRIPTION	MAXIMUM OPERATING PRESSURE	NOMINAL FLOW (GPM)	PORTS	
				P, A, B	T
VD6A/D/U4S	1 SECTION/DOUBLE ACTING	5000 PSI	15	SAE 8 3/4 -16 UNF	SAE 10 7/8 -14 UNF
VD6A/DD/U4S	2 SECTIONS/DOUBLE ACTING				
VD6A/DDD/U4S	3 SECTIONS/DOUBLE ACTING				
VD6A/DDDD/U4S	4 SECTIONS/DOUBLE ACTING				
VD6A/DDDDD/U4S	5 SECTIONS/DOUBLE ACTING				
VD6A/DDDDDD/U4S	6 SECTIONS/DOUBLE ACTING				

OTHER SPOOLS AVAILABLE FROM STOCK

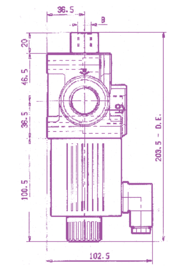
OPTIONS

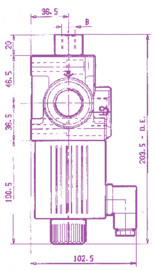
PART NUMBER	DESCRIPTION
795429200	PLUG FOR CARRY OVER/POWER BEYOND
R23400590	PORT RELIEF VALVE (2650-4000) OTHER PRESSURES AVAILABLE
R23400540	PORT RELIEF +ANTICAVITATION VALVE (3000-4015) OTHER PRESSURES AVAILABLE
R23400550	ANTICAVITATION VALVE
R23400320	VDM6/VD6A DETENT IN OUT KIT
R23400100	VDM6/VD6A PNEUMATIC PROPORTIONAL KIT
R23100080	VDM6/VD6A HYDRAULIC PROPORTIONAL KIT
R23400033	VD6A/L1-L2 JOYSTICK
R23400036	VD6A//L1-L2 JOYSTICK FOR FLOAT

12 / 24 VDC PUSH PULL OR ELECTRO HYDRAULIC AVAILABLE FROM STOCK

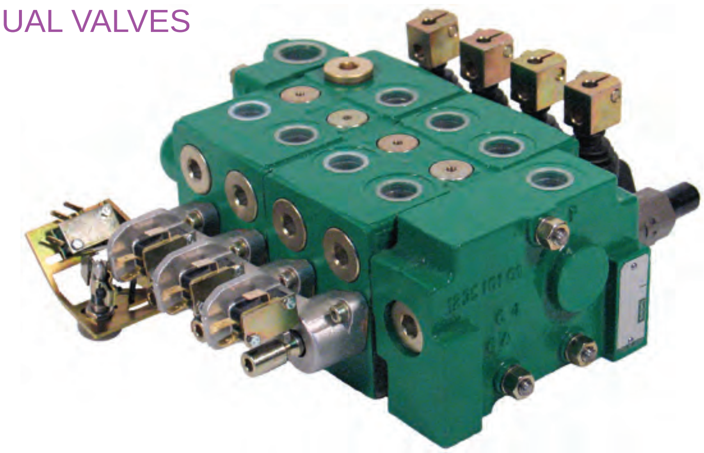


VALVES





VD8A MANUAL VALVES



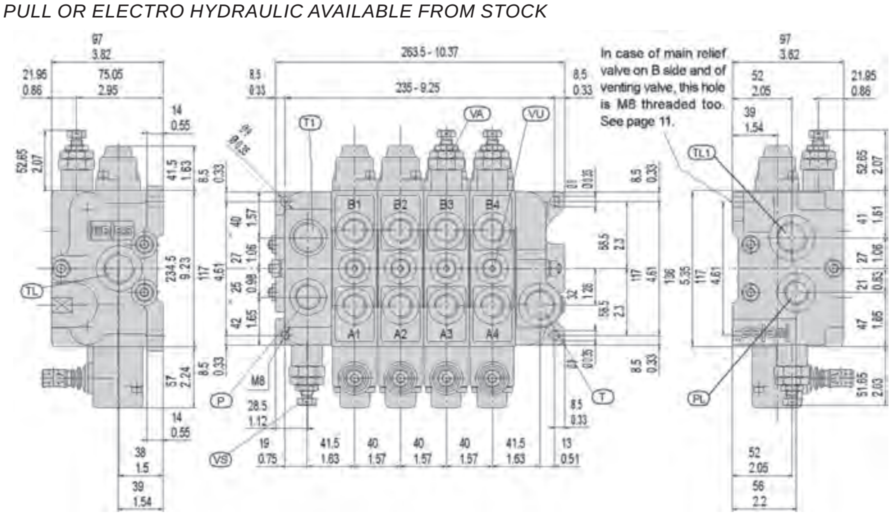
PART NUMBER	PART NUMBER	MAXIMUM OPERATING PRESSURE	NOMINAL FLOW (GPM)	PORTS	
				P,A,B	T
VD8A/D/U4S	1 SECTION/DOUBLE ACTING	5000 PSI	25	SAE 10 7/8 -14 UNF	SAE 12 1-1/16 -12 UNF
VD8A/DD/U4S	2 SECTIONS/DOUBLE ACTING				
VD8A/DDD/U4S	3 SECTIONS/DOUBLE ACTING				
VD8A/DDDD/U4S	4 SECTIONS/DOUBLE ACTING				
VD8A/DDDDD/U4S	5 SECTIONS/DOUBLE ACTING				
VD8A/DDDDDD/U4S	6 SECTIONS/DOUBLE ACTING				

OTHER SPOOLS AVAILABLE FROM STOCK

OPTIONS

PART NUMBER	DESCRIPTION
R23580020	PLUG FOR CARRY OVER/POWER BEYOND
R23577591	PORT RELIEF VALVE (1915-4160) OTHER PRESSURES AVAILABLE
R23570040	PORT RELIEF +ANTICAVITATION VALVE (1460-5110) OTHER PRESSURES AVAILABLE
R23577511	ANTICAVITATION VALVE
R23500300	VDM8/VD8A DETENT IN OUT KIT
R23575151	VDM8/VD8A PNEUMATIC PROPORTIONAL KIT
R23575322	VDM8/VD8A HYDRAULIC PROPORTIONAL KIT
R23587570	VD8A/L1 JOYSTICK
R23587580	VD8A//L2 JOYSTICK FOR FLOAT

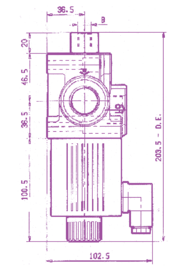
12 / 24 VDC PUSH PULL OR ELECTRO HYDRAULIC AVAILABLE FROM STOCK



VALVES

20 MANUAL VALVES

SECTIONAL V20 VALVE
- 20 GMP MAX
- 3500 PSI MAX PRESSURE
- INTERCHANGEABLE WITH GRESEN V20
- LOAD SENSING AND ELECTRIC VERSIONS ARE AVAILABLE

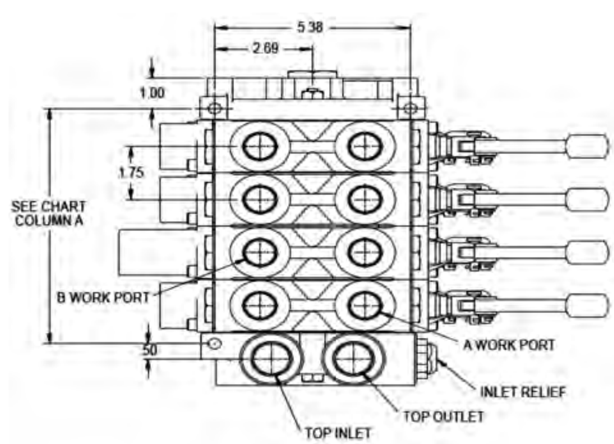


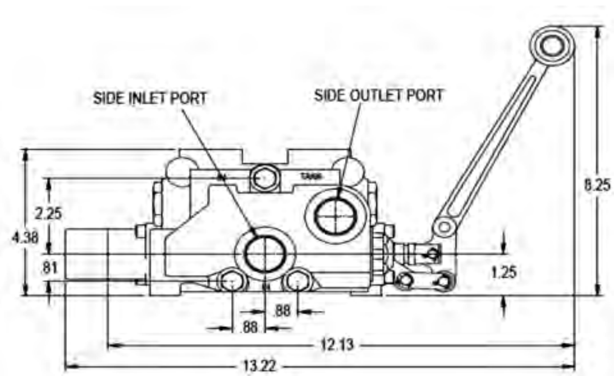
POPULAR PARTS

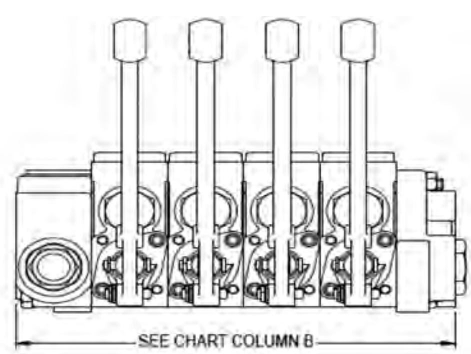
PART NUMBER	DESCRIPTION
20I2E	INLET SAE 12 WITH RELIEF 2200-3000 PSI
20P1AA1AA	WORK SECTION SAE 12, SINGLE ACTING, SPRING RETURN, STD HANDLE
20P1BA1AA	WORK SECTION SAE 12, DOUBLE ACTING, SPRING RETURN, STD HANDLE
20P1BE1AA	WORK SECTION SAE 12, DOUBLE ACTING C/W PNEUMATIC ACTUATOR
20P1AE1AA	WORK SECTION SAE 12, SINGLE ACTING C/W PNEUMATIC ACTUATOR
20P1DD1AA	WORK SECTION SAE 12, DOUBLE ACTING C/W 4TH FLOAT POSITION
20E22	OUTLET SAE 12
66040200-X	TIE-ROD (SPECIFY NUMBER OF SECTION "X")
660290004	POWER BEYOND
660190007	STANDARD HANDLE
660190004	3 POSITION DETENT
660290401	PORT RELIEF 500-1350 PSI
660290403	PORT RELIEF 1350-1750 PSI
660290405	PORT RELIEF 1750-2200 PSI
660290407	PORT RELIEF 2200-3000 PSI

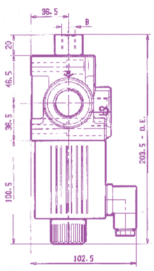
NUMBER OF WORK SECTIONS

	1	2	3	4	5	6	7	8
A	2.50	4.25	6.00	7.75	9.50	11.25	13.00	14.75
B	4.88	6.63	8.38	10.13	11.88	13.63	15.38	17.13









VD10A VALVES

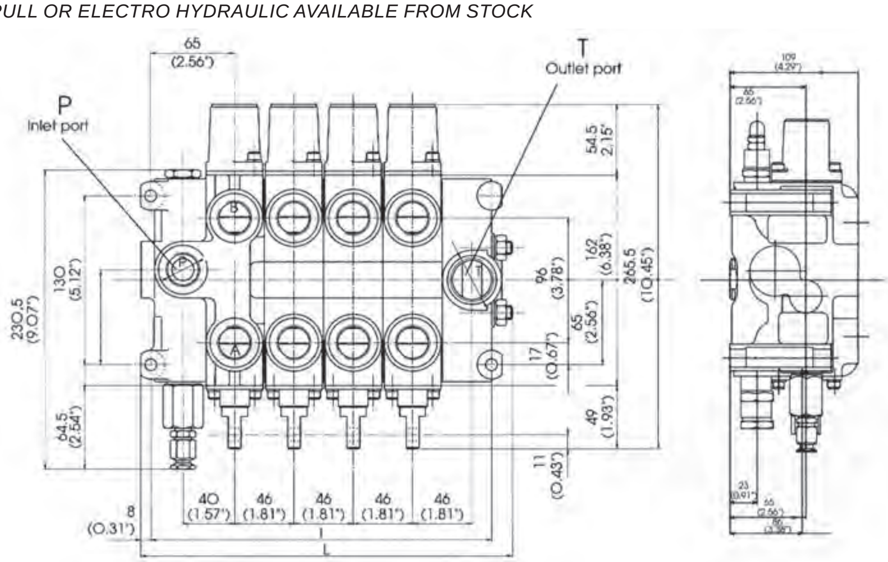
PART NUMBER	DESCRIPTION	MAXIMUM OPERATING PRESSURE	NOMINAL FLOW (GPM)	PORTS P,A,B,T
VD10A/D/U4S	1 SECTION/DOUBLE ACTING	4000 PSI	32	SAE 12 1-1/16 - 12 UNF
VD10A/DD/U4S	2 SECTIONS/DOUBLE ACTING			
VD10A/DDD/U4S	3 SECTIONS/DOUBLE ACTING			
VD10A/DDDD/U4S	4 SECTIONS/DOUBLE ACTING			
VD10A/DDDDD/U4S	5 SECTIONS/DOUBLE ACTING			
VD10A/DDDDDD/U4S	6 SECTIONS/DOUBLE ACTING			

OTHER SPOOLS AVAILABLE FROM STOCK

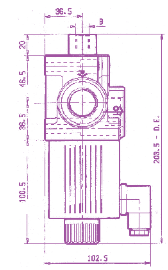
OPTIONS

PART NUMBER	DESCRIPTION
R22080130	PLUG FOR CARRY OVER/POWER BEYOND
R22078390	PORT RELIEF VALVE (3060-5075) OTHER PRESSURES AVAILABLE
R22078360	PORT RELIEF +ANTICAVITATION VALVE (3060-4785) OTHER PRESSURES AVAILABLE
R22078440	ANTICAVITATION VALVE
R22400309	VD10A DETENT IN OUT KIT
R22176330	VD10A PNEUMATIC PROPORTIONAL KIT
R22475079	VD10A HYDRAULIC PROPORTIONAL KIT

12 / 24 VDC PUSH PULL OR ELECTRO HYDRAULIC AVAILABLE FROM STOCK



VD12A VALVES



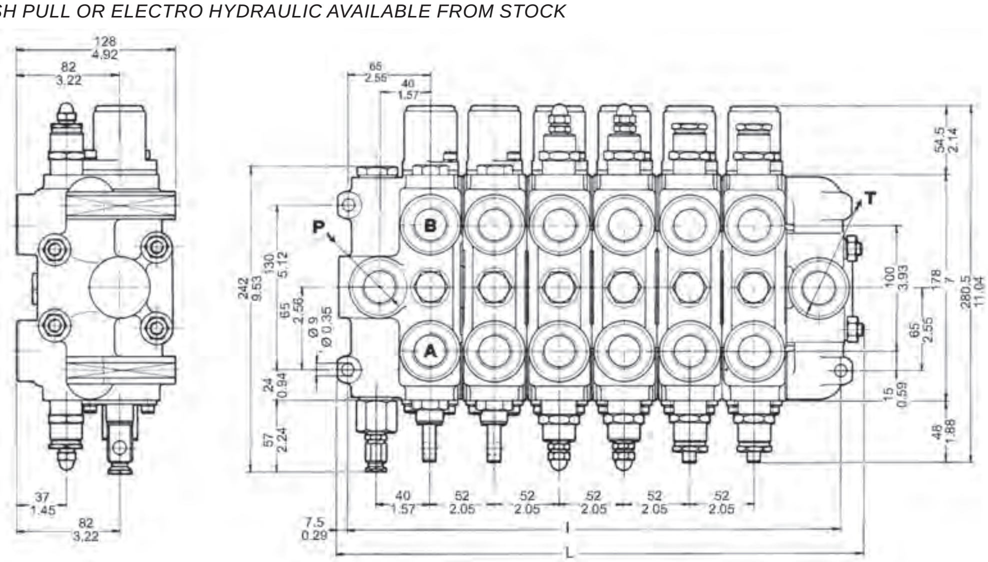
PART NUMBER	PART NUMBER	MAXIMUM OPERATING PRESSURE	NOMINAL FLOW (GPM)	PORTS	
				P,T	A,B
VD12A/D/U4S	1 SECTION/DOUBLE ACTING	4000 PSI	47	SAE 16 1-5/16 - 16 UNF	SAE 12 1-1/16 - 12 UNF
VD12A/DD/U4S	2 SECTIONS/DOUBLE ACTING				
VD12A/DDD/U4S	3 SECTIONS/DOUBLE ACTING				
VD12A/DDDD/U4S	4 SECTIONS/DOUBLE ACTING				
VD12A/DDDDD/U4S	5 SECTIONS/DOUBLE ACTING				
VD12A/DDDDDD/U4S	6 SECTIONS/DOUBLE ACTING				

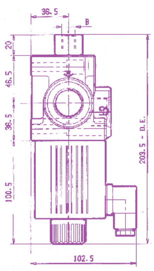
OTHER SPOOLS AVAILABLE FROM STOCK

VD12A SERIE

PART NUMBER	DESCRIPTION
795429500	PLUG FOR CARRY OVER/POWER BEYOND
R22078390	PORT RELIEF VALVE (3060-5075) OTHER PRESSURES AVAILABLE
R22078360	PORT RELIEF +ANTICAVITATION VALVE (3060-4785) OTHER PRESSURES AVAILABLE
R22078440	ANTICAVITATION VALVE
R22400309	VD12A DETENT IN OUT KIT
R22176330	VD12A PNEUMATIC PROPORTIONAL KIT
R22475079	VD12A HYDRAULIC PROPORTIONAL KIT

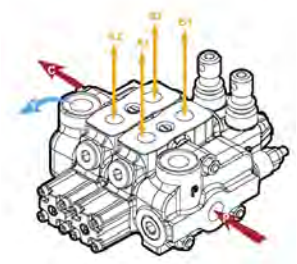
12 / 24 VDC PUSH PULL OR ELECTRO HYDRAULIC AVAILABLE FROM STOCK





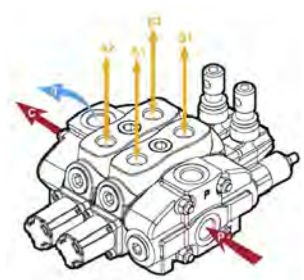
SN-3

NOMINAL FLOW RATE	13 GPM
OPERATING PRESSURE (MAXIMUM) PARALLE CIRCUIT	4600 PSI
BACK PRESSURE (MAXIMUM) ON OUTLET PORT T	360 PSI



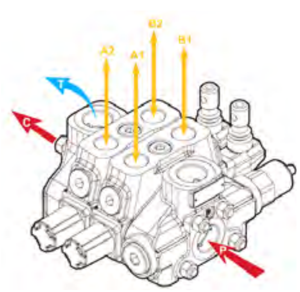
SN-4

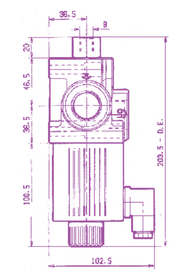
NOMINAL FLOW RATE	21 GPM
OPERATING PRESSURE (MAXIMUM) PARALLE CIRCUIT	4600 PSI
BACK PRESSURE (MAXIMUM) ON OUTLET PORT T	360 PSI



SN-5

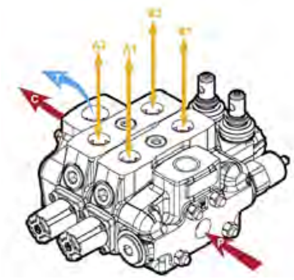
NOMINAL FLOW RATE	32 GPM
OPERATING PRESSURE (MAXIMUM) PARALLE CIRCUIT	4600 PSI
BACK PRESSURE (MAXIMUM) ON OUTLET PORT T	360 PSI





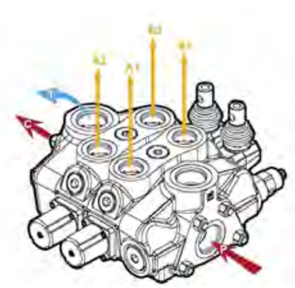
SN-6

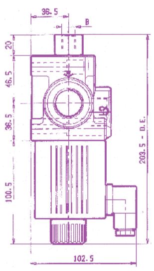
NOMINAL FLOW RATE	42 GPM
OPERATING PRESSURE (MAXIMUM) PARALLE CIRCUIT	4600 PSI
BACK PRESSURE (MAXIMUM) ON OUTLET PORT T	360 PSI



SN-8

NOMINAL FLOW RATE	63 GPM
OPERATING PRESSURE (MAXIMUM) PARALLE CIRCUIT	4600 PSI
BACK PRESSURE (MAXIMUM) ON OUTLET PORT T	360 PSI





PV4 VALVES

FITS "PVG32"
DANFOSS FOOTPRINT

- LOAD SENSING PROPORTIONAL FOR FIXED AND VARIABLE DISPLACEMENT PUMPS
- FOR MOBILE & INDUSTRIAL APPLICATION
- FULLY CUSTOMABLE VALVE
- CHOICE OF SPOOLS ESPECIALLY DESIGNED FOR REQUEST FLOW
- LEVERS WITH INDIVIDUAL FLOW ADJUSTMENT SCREWS
- MANY CONTROLS AVAILBLE SUCH AS:
  - SINGLE MANUAL LEVERS
  - ELECTRONIC ON/OFF SIGNAL
  - PROPORTIONNAL ANALOG OR PWM SIGNAL
  - HYDRAULIC & CABLE CONTROLS
  - FRICTION DETENT
- SHOCK AND ANTI-CAVITATION VALVES AVAILABLE
- GREAT CHOICE OF DIFFERENT INLETS

PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
PV3 OR PV4 (CALL US FOR ASSISTANCE)	1 AND +	37	5075	P: SAE-08 & 10 A&B: SAE-10 T: SAE-12

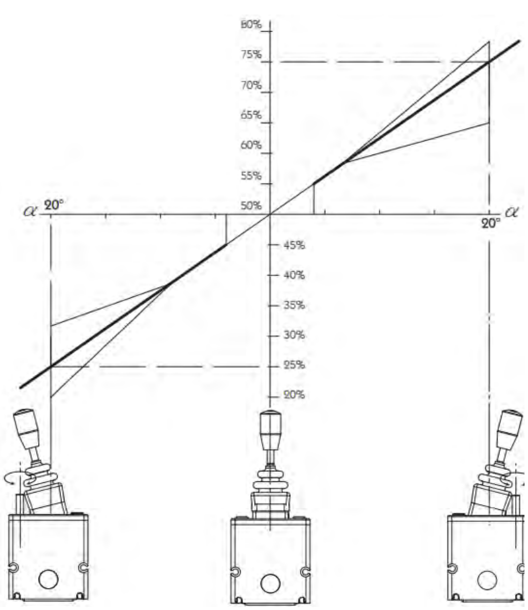
PV3 VALVES

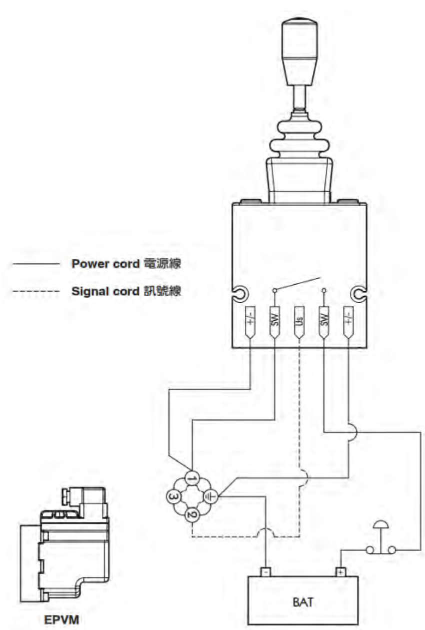
FITS "PVG16"
DANFOSS FOOTPRINT

- SAME AS PV4 VALVES. MORE COMPACT SECTIONS

PVH-1 PROPORTIONAL CONTROL

- SINGLE LEVER FOR ONE SECTION OPERATION
- ESPECIALLY DESIGNED TO BE INSTALLED WITH PV4 & PV3 VALVES

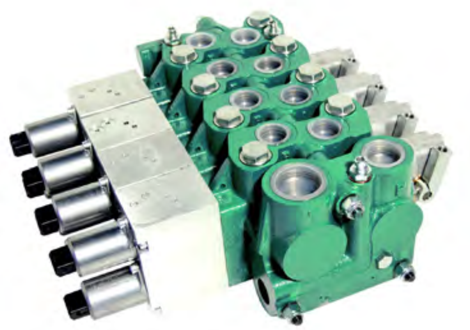




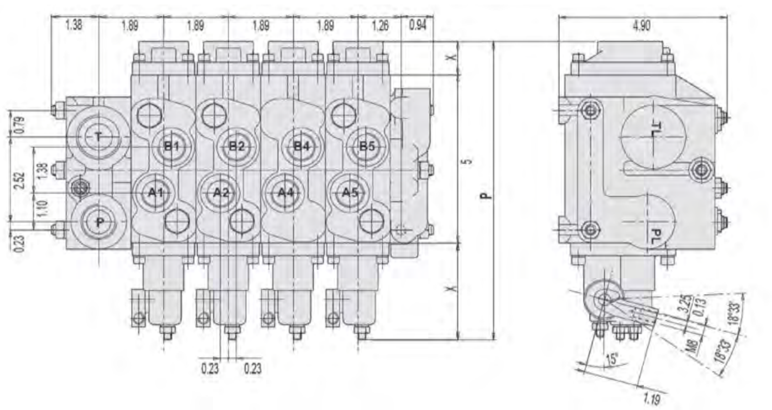
INPUT RANGE	11-30VDC
CURRENT CONSUMPTION	100 mA
OUTPUT VOLTAGE	0.25 - 0.75 VDC
NEUTRAL VOLTAGE	0.5 VDC

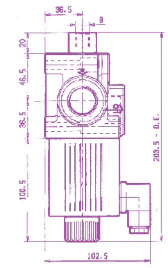
VDP08 LOAD SENSE VALVES

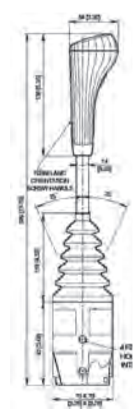
- FOR FIXED OR VARIABLE DISPLACEMENT PUMP
- MANY SPOOL CONTROLS AVAILABLE SUCH AS
- MANUAL CONTROL
- PNEUMATIC OR HYDRAULIC CONTROL
- ELECTRICAL ON/OFF OR PROPORTIONAL



PART NUMBER	NB OF SPOOL	GPM MAX	PSI MAX	PORTS
VDP08 (CALL US FOR ASSISTANCE)	1 AND +	34 ON P PORT 25 ON A/B PORT	4500	P: SAE 12 A&B: SAE 10 T: SAE 16 LS: SAE 04



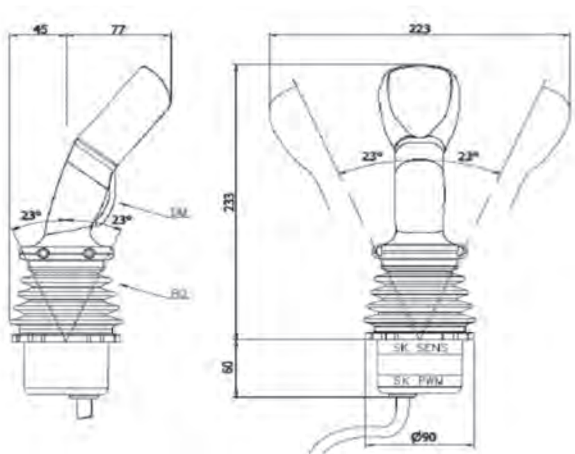


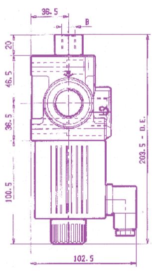


ELECTRONIC PROPORTIONAL PWM CONTROLLED

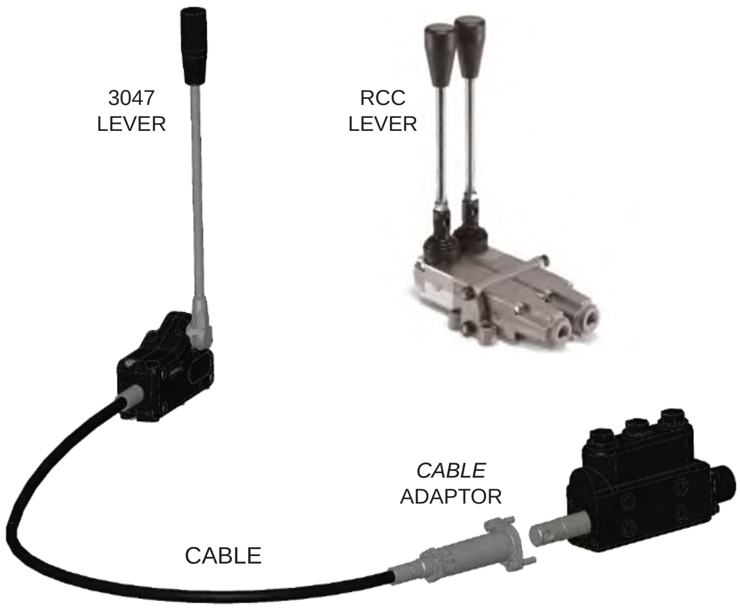
ELECTRIC SPECIFICATIONS

- SUPPLY VOLTAGE: 8-32 VDC
- CURRENT CONSUMPTION @ REST: 250 MA
- SENSOR HALL EFFECT CONTACTLESS TECHNOLOGY
- PWM OUTPUT: 2X DUAL PROPORTIONAL SOLENOID VALVES
- CURRENT OUTPUT RANGE (PWM) FROM 100 TO 1600 MA
- DITHER FREQUENCY: FROM 60 TO 250 HZ (100 HZ FACTORY PRESET)





MADE TO FITS ON HYDRAULIC VALVES



LEVER AND JOYSTICK

PART NO	DESCRIPTION	FITS ON
3047	SINGLE AXIS LEVER	SALAMI, PRINCE
3336	DUAL AXIS JOYSTICK	
RCC3-1S-HL+GC	SINGLE AXIS LEVER MB2 TO MB4	YOULI, WALVOIL
RCC5-1S-HL+GC	SINGLE AXIS LEVER MB5	
FCR-2	DUAL AXIS JOYSTICK	

CABLE ADAPTOR FOR VALVES

PART NO	VALVE MODELS	BRAND
R360T0200	VDM8, VD8A, VDM7	SALAMI
R360T0400	VDM9	
R360T0500	VD10A & VD12A	
R360T0600	VDM6, VD6A, VDM6A	
660170035	V20	PRINCE
660170037	RD500	
YLMB45003	MB2, MB3, MB4 & SD4, SD5	YOULI, WALVOIL
YLMB55003	MB5 & SD11	

LEVER VALVE

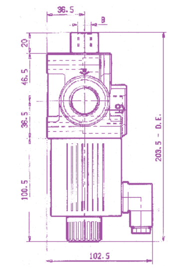
CABLE-XXXX TYPE

CABLES

PART NO	DESCRIPTION	BRAND
IT-3056/01.00	39.4 IN (1 M)	SALAMI, PRINCE
IT-3056/01.50	59.1 IN (1.5 M)	
IT-3056/02.00	78.7 IN (2 M)	
IT-3056/02.50	98.4 IN (2.5 M)	
IT-3056/03.00	118.1 IN (3 M)	
IT-3056/03.50	137.8 IN (3.5 M)	
IT-3056/04.00	157.5 IN (4 M)	
CABLE-1000	39.4 IN (1 M)	YOULI, WALVOIL
CABLE-1500	59.1 IN (1.5 M)	
CABLE-2000	78.7 IN (2 M)	

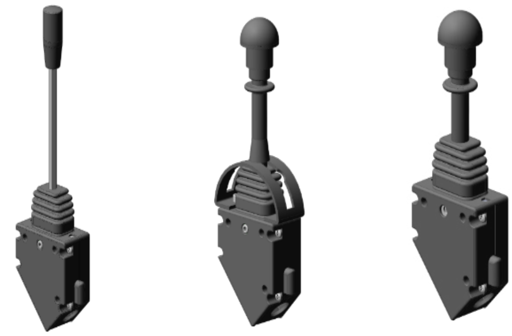
LEVER VALVE

IT-3056/CABLE TYPE



MORSE TYPE LEVERS

PART NO	DESCRIPTION
3430	SPRING RETURN
3488	WITH DETENT
3461	WITH CENTRAL LOCK KNOB

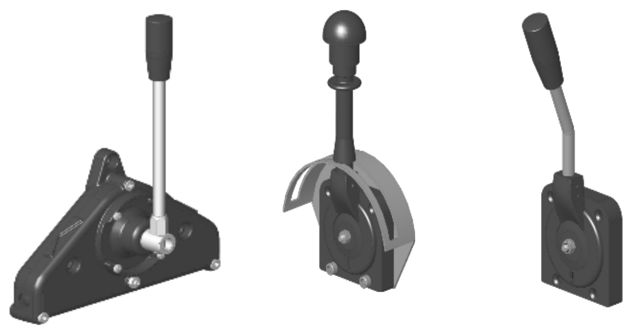


LONG STROKE LEVERS

PART NO	DESCRIPTION
3472	RACK GEAR

HAND THROTTLE

PART NO	DESCRIPTION
3401	HAND THROTTLE
3408	HAND THROTTLE WITH LEVER



CABLES

PART NO	LENGHT
732491/01.00	39.4 IN (1 M)
732491/02.00	78.7 IN (2 M)
732491/03.00	118.1 IN (3 M)

CABLES (75MM TRAVEL)

PART NO	DESCRIPTION
741715/01.50	59.1 IN (1.5M)
741715/02.00	78.7 IN (2M)
741715/03.00	118.1 IN (3M)

CABLES (80MM TRAVEL)

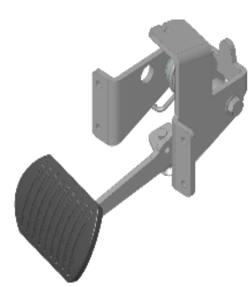
PART NO	DESCRIPTION
732882/01.00	39.4 IN (1M)
732882/02.00	78.7 IN (2M)
732882/03.00	118.1 IN (3M)

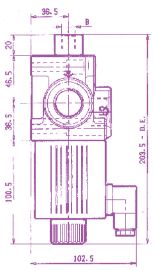
PEDAL THROTTLE

PART NO	DESCRIPTION
4021	BULKHEAD MOUNT WITH DETENT, 28MM TRAVEL
208991	FLOOR MOUNT, WITH LEVER, 28MM STROKE

ROCKER PEDALS

PART NO	DESCRIPTION
631368	SINGLE ROCKER, 17MM TRAVEL
631366	DOUBLE ROCKER PEDAL, 14MM TRAVEL





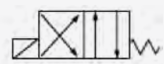
CETOP D03 VALVES (ISO NG6)

- INTERCHANGEABLE WITH CETOP AND ISO VALVES ON THE MARKET
- BOLTKIT AND DIN CONNECTORS WITH LED INCLUDED
- CSA, UL AND CE PROOF
- OTHER SPOOL MODELS AND VOLTAGE AVAILAILBLE
- SOFTSHIFT VALVES AVAILABLE

DIN CONN

TERMINAL BOX

HC Hydro Custom MAXIMUM PRESSURE: 4560 PSI
MAXIMUM BACK PRESSURE: 2320 PSI

PART NO	VOLTAGE	MAX GPM @3600 PSI	SPOOL MODEL	MAX GPM @3600 PSI	VOLTAGE	YUKEN PART NO
4WE6-D-6X/ED12-LL	12V DC DIN	18		21	12V DC DIN	DSG01-2B2-D12N
4WE6-D-6X/ED12-BL	12V DC BOX				12V DC BOX	DSG01-2B2-D12
4WE6-D-6X/ED24-LL	24V DC DIN				24V DC DIN	DSG01-2B2-D24N
4WE6-D-6X/ED24-BL	24V DC BOX				24V DC BOX	DSG01-2B2-D24N
4WE6-D-6X/ER110-LL	120V AC DIN				120V AC DIN	DSG01-2B2-A120N
4WE6-D-6X/ER110-BL	120 V AC BOX				120 V AC BOX	DSG01-2B2-A120
4WE6-E-6X/ED12-LL	12V DC DIN	21		26	12V DC DIN	DSG01-3C2-D12N
4WE6-E-6X/ED12-BL	12V DC BOX				12V DC BOX	DSG01-3C2-D12
4WE6-E-6X/ED24-LL	24V DC DIN				24V DC DIN	DSG01-3C2-D24N
4WE6-E-6X/ED24-BL	24V DC BOX				24V DC BOX	DSG01-3C2-D24N
4WE6-E-6X/ER110-LL	120V AC DIN				120V AC DIN	DSG01-3C2-A120N
4WE6-E-6X/ER110-BL	120 V AC BOX				120 V AC BOX	DSG01-3C2-A120
4WE6-H-6X/ED12-LL	12V DC DIN	13		24	12V DC DIN	DSG01-3C3-D12N
4WE6-H-6X/ED12-BL	12V DC BOX				12V DC BOX	DSG01-3C3-D12
4WE6-H-6X/ED24-LL	24V DC DIN				24V DC DIN	DSG01-3C3-D24N
4WE6-H-6X/ED24-BL	24V DC BOX				24V DC BOX	DSG01-3C3-D24N
4WE6-H-6X/ER110-LL	120V AC DIN				120V AC DIN	DSG01-3C3-A120N
4WE6-H-6X/ER110-BL	120 V AC BOX				120 V AC BOX	DSG01-3C3-A120
4WE6-J-6X/ED12-LL	12V DC DIN	21		24	12V DC DIN	DSG01-3C4-D12N
4WE6-J-6X/ED12-BL	12V DC BOX				12V DC BOX	DSG01-3C4-D12
4WE6-J-6X/ED24-LL	24V DC DIN				24V DC DIN	DSG01-3C4-D24N
4WE6-J-6X/ED24-BL	24V DC BOX				24V DC BOX	DSG01-3C4-D24N
4WE6-J-6X/ER110-LL	120V AC DIN				120V AC DIN	DSG01-3C4-A120N
4WE6-J-6X/ER110-BL	120 V AC BOX				120 V AC BOX	DSG01-3C4-A120
4WE6-G-6X/ER12-LL	12V DC DIN	13		10	12V DC DIN	DSG01-3C60-D12N
4WE6-G-6X/ER12-BL	12V DC BOX				12V DC BOX	DSG01-3C60-D12
4WE6-G-6X/ER24-LL	24V DC DIN				24V DC DIN	DSG01-3C60-D24N
4WE6-G-6X/ER24-BL	24V DC BOX				24V DC BOX	DSG01-3C60-D24N
4WE6-G-6X/ER110-LL	120V AC DIN				120V AC DIN	DSG01-3C60-A120N
4WE6-G-6X/ER110-BL	120 V AC BOX				120 V AC BOX	DSG01-3C60-A120

SUBPLATES

- 10-24 UNC THREADS

PART NO	DESCRIPTION
SPA03-BP-S08	ALU, 3000 PSI, SAE-08, BOTTOM PORTS
SPA03-SB-S08	ALU, 3000 PSI, ALL PORTS ON SIDE. P & T ALSO ON BOTTOM
SPA03-SB-S08-C10-2	SAME AS SPA03-SB-S08 PLUS C10-2 RELIEF CAVITY
DSGM01-X-3090	CAST IRON, 5000 PSI, 1/4 NPT BOTTOM PORTS
DSGM01-Y-3090	CAST IRON, 5000 PSI, 3/8 NPT BOTTOM PORTS

COVER PLATES

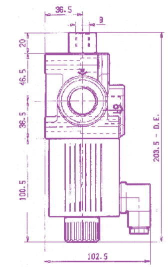
- 3000 PSI, ALUMINUM MADE
- BOLT KIT INCLUDED

PART NO	DESCRIPTION
CPA03-XX	ALL PORTS BLOCKED
CPA03-PT	OIL PASSAGE FROM P TO T

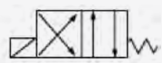
CETOP D05 VALVES (ISO NG10)

- INTERCHANGEABLE WITH CETOP AND ISO VALVES ON THE MARKET
- BOLTKIT AND DIN CONNECTORS WITH LED INCLUDED
- CSA, UL AND CE PROOF
- OTHER SPOOL MODELS AND VOLTAGE AVAILAILBLE
- SOFTSHIFT VALVES AVAILABLE





HC Hydro Custom MAXIMUM PRESSURE: 4560 PSI
MAXIMUM BACK PRESSURE: 2320 PSI

PART NO	VOLTAGE	MAX GPM @3600 PSI	SPOOL MODEL	MAX GPM @3600 PSI	VOLTAGE	YUKEN PART NO
4WE10-D-3X/CD12-LL	12V DC DIN	26		32	12V DC DIN	DSG03-2B2-D12N
4WE10-D-3X/CD12-BL	12V DC BOX				12V DC BOX	DSG03-2B2-D12
4WE10-D-3X/CD24-LL	24V DC DIN				24V DC DIN	DSG03-2B2-D24N
4WE10-D-3X/CD24-BL	24V DC BOX				24V DC BOX	DSG03-2B2-D24N
4WE10-D-3X/CR110-LL	120V AC DIN				120V AC DIN	DSG03-2B2-A120N
4WE10-D-3X/CR110-BL	120 V AC BOX				120 V AC BOX	DSG03-2B2-A120
4WE10-E-3X/CD12-LL	12V DC DIN	32		26	12V DC DIN	DSG03-3C2-D12N
4WE10-E-3X/CD12-BL	12V DC BOX				12V DC BOX	DSG03-3C2-D12
4WE10-E-3X/CD24-LL	24V DC DIN				24V DC DIN	DSG03-3C2-D24N
4WE10-E-3X/CD24-BL	24V DC BOX				24V DC BOX	DSG03-3C2-D24N
4WE10-E-3X/CR110-LL	120V AC DIN				120V AC DIN	DSG03-3C2-A120N
4WE10-E-3X/CR110-BL	120 V AC BOX				120 V AC BOX	DSG03-3C2-A120
4WE10-H-3X/CD12-LL	12V DC DIN	26		24	12V DC DIN	DSG03-3C3-D12N
4WE10-H-3X/CD12-BL	12V DC BOX				12V DC BOX	DSG03-3C3-D12
4WE10-H-3X/CD24-LL	24V DC DIN				24V DC DIN	DSG03-3C3-D24N
4WE10-H-3X/CD24-BL	24V DC BOX				24V DC BOX	DSG03-3C3-D24N
4WE10-H-3X/CR110-LL	120V AC DIN				120V AC DIN	DSG03-3C3-A120N
4WE10-H-3X/CR110-BL	120 V AC BOX				120 V AC BOX	DSG03-3C3-A120
4WE10-J-3X/CD12-LL	12V DC DIN	32		24	12V DC DIN	DSG03-3C4-D12N
4WE10-J-3X/CD12-BL	12V DC BOX				12V DC BOX	DSG03-3C4-D12
4WE10-J-3X/CD24-LL	24V DC DIN				24V DC DIN	DSG03-3C4-D24N
4WE10-J-3X/CD24-BL	24V DC BOX				24V DC BOX	DSG03-3C4-D24N
4WE10-J-3X/CR110-LL	120V AC DIN				120V AC DIN	DSG03-3C4-A120N
4WE10-J-3X/CR110-BL	120 V AC BOX				120 V AC BOX	DSG03-3C4-A120
4WE10-G-3X/CD12-LL	12V DC DIN	21		18	12V DC DIN	DSG03-3C60-D12N
4WE10-G-3X/CD12-BL	12V DC BOX				12V DC BOX	DSG03-3C60-D12
4WE10-G-3X/CD24-LL	24V DC DIN				24V DC DIN	DSG03-3C60-D24N
4WE10-G-3X/CD24-BL	24V DC BOX				24V DC BOX	DSG03-3C60-D24N
4WE10-G-3X/CR110-LL	120V AC DIN				120V AC DIN	DSG03-3C60-A120N
4WE10-G-3X/CR110-BL	120 V AC BOX				120 V AC BOX	DSG03-3C60-A120

SUBPLATES

- 1/4-20 UNC THREADS


PART NO	DESCRIPTION
SPA05-SP-S10	ALU, 3000 PSI, SAE-10, SIDE PORTS
SPA05-SB-S10-C10-2	ALU, 3000 PSI, SIDE PORTS. P & T ALSO ON BOTTOM, SAE-10 C10-2 RELIEF CAVITY
DSGM03-X-2190	CAST IRON, 5000 PSI, 1/2 NPT, BOTTOM PORTS
DSGM03-Y-2190	CAST IRON, 5000 PSI, 3/4 NPT, BOTTOM PORTS

COVER PLATES

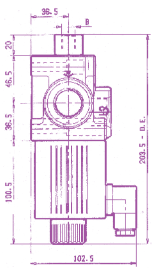
- 3000 PSI, ALUMINUM MADE
- BOLT KIT INCLUDED

PART NO	DESCRIPTION
CPA05-XX	ALL PORTS BLOCKED
CPA05-PT	OIL PASSAGE FROM P TO T

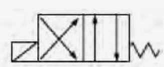
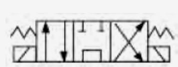
VALVES

CETOP D07 VALVES (ISO NG16)

- INTERCHANGEABLE WITH CETOP AND ISO VALVES ON THE MARKET
- BOLTKIT AND DIN CONNECTORS WITH LED INCLUDED
- CSA, UL AND CE PROOF
- OTHER SPOOL MODELS AND VOLTAGE AVAILAILBLE
- INTERNAL PILOT, EXTERNAL DRAIN SETUP. EASY TO MODIFY



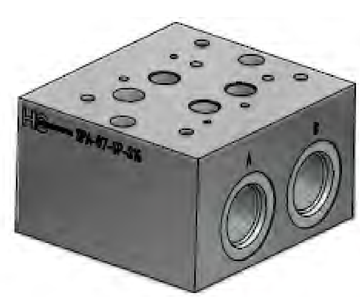
HC Hydro Custom MAXIMUM PRESSURE: 4560 PSI
MAXIMUM BACK PRESSURE: 2320 PSI

PART NO	VOLTAGE	MAX GPM @3600 PSI	SPOOL MODEL	MAX GPM @3600 PSI	VOLTAGE	PART NO
4WEH16-D-D12-E-LL	12V DC DIN	66		79	12V DC DIN	DSHG04-2B2-D12N
4WEH16-D-D12-E-BL	12V DC BOX				12V DC BOX	DSHG04-2B2-D12
4WEH16-D-D24-E-LL	24V DC DIN				24V DC DIN	DSHG04 -2B2-D24N
4WEH16-D-D24-E-BL	24V DC BOX				24V DC BOX	DSHG04-2B2-D24N
4WEH16-D-R110-E-LL	120V AC DIN				120V AC DIN	DSHG04-2B2-A120N
4WEH16-D-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG04-2B2-A120
4WEH16-E-D12-E-LL	12V DC DIN	66		53	12V DC DIN	DSHG04-3C2-D12N
4WEH16-E-D12-E-BL	12V DC BOX				12V DC BOX	DSHG04-3C2-D12
4WEH16-E-D24-E-LL	24V DC DIN				24V DC DIN	DSHG04-3C2-D24N
4WEH16-E-D24-E-BL	24V DC BOX				24V DC BOX	DSHG04-3C2-D24N
4WEH16-E-R110-E-LL	120V AC DIN				120V AC DIN	DSHG04-3C2-A120N
4WEH16-E-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG04-3C2-A120
4WEH16-H-D12-E-LL	12V DC DIN	79		79	12V DC DIN	DSHG04-3C3-D12N
4WEH16-H-D12-E-BL	12V DC BOX				12V DC BOX	DSHG04-3C3-D12
4WEH16-H-D24-E-LL	24V DC DIN				24V DC DIN	DSHG04-3C3-D24N
4WEH16-H-D24-E-BL	24V DC BOX				24V DC BOX	DSHG04-3C3-D24N
4WEH16-H-R110-E-LL	120V AC DIN				120V AC DIN	DSHG04-3C3-A120N
4WEH16-H-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG04-3C3-A120
4WEH16-J-D12-E-LL	12V DC DIN	79		66	12V DC DIN	DSHG04-3C4-D12N
4WEH16-J-D12-E-BL	12V DC BOX				12V DC BOX	DSHG04-3C4-D12
4WEH16-J-D24-E-LL	24V DC DIN				24V DC DIN	DSHG04-3C4-D24N
4WEH16-J-D24-E-BL	24V DC BOX				24V DC BOX	DSHG04-3C4-D24N
4WEH16-J-R110-E-LL	120V AC DIN				120V AC DIN	DSHG04-3C4-A120N
4WEH16-J-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG04-3C4-A120
4WEH16-G-D12-E-LL	12V DC DIN	66		79	12V DC DIN	DSHG04-3C60-D12N
4WEH16-G-D12-E-BL	12V DC BOX				12V DC BOX	DSHG04-3C60-D12
4WEH16-G-D24-E-LL	24V DC DIN				24V DC DIN	DSHG04-3C60-D24N
4WEH16-G-D24-E-BL	24V DC BOX				24V DC BOX	DSHG04-3C60-D24N
4WEH16-G-R110-E-LL	120V AC DIN				120V AC DIN	DSHG04-3C60-A120N
4WEH16-G-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG04-3C60-A120

SUBPLATES

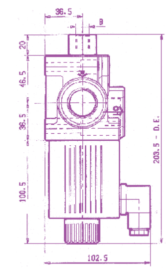
- IMPERIAL THREADS

PART NO	DESCRIPTION
SPA07-SP-S16	ALU, 3000 PSI, SAE-16, SIDE PORTS
DHGM-04X-2090	CAST IRON, 5000 PSI, 3/4 NPT, BOTTOM PORTS

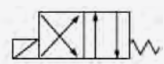
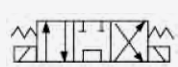


CETOP D08 VALVES (ISO NG25)

- INTERCHANGEABLE WITH CETOP AND ISO VALVES ON THE MARKET
- BOLTKIT AND DIN CONNECTORS WITH LED INCLUDED
- CSA, UL AND CE PROOF
- OTHER SPOOL MODELS AND VOLTAGE AVAILAILBLE
- INTERNAL PILOT, EXTERNAL DRAIN SETUP. EASY TO MODIFY



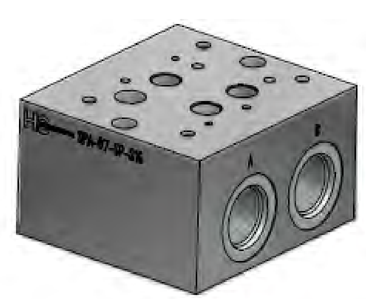
HC Hydro Custom MAXIMUM PRESSURE: 5075 PSI
MAXIMUM BACK PRESSURE: 2320 PSI

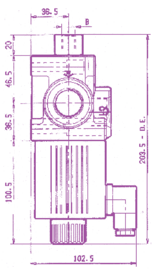
PART NO	VOLTAGE	MAX GPM @3600 PSI	SPOOL MODEL	MAX GPM @3600 PSI	VOLTAGE	PART NO
4WEH25-D-D12-E-LL	12V DC DIN	172		132	12V DC DIN	DSHG06-2B2-D12N
4WEH25-D-D12-E-BL	12V DC BOX				12V DC BOX	DSHG06-2B2-D12
4WEH25-D-D24-E-LL	24V DC DIN				24V DC DIN	DSHG06-2B2-D24N
4WEH25-D-D24-E-BL	24V DC BOX				24V DC BOX	DSHG06-2B2-D24N
4WEH25-D-R110-E-LL	120V AC DIN				120V AC DIN	DSHG06-2B2-A120N
4WEH25-D-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG06-2B2-A120
4WEH25-E-D12-E-LL	12V DC DIN	172		132	12V DC DIN	DSHG06-3C2-D12N
4WEH25-E-D12-E-BL	12V DC BOX				12V DC BOX	DSHG06-3C2-D12
4WEH25-E-D24-E-LL	24V DC DIN				24V DC DIN	DSHG06-3C2-D24N
4WEH25-E-D24-E-BL	24V DC BOX				24V DC BOX	DSHG06-3C2-D24N
4WEH25-E-R110-E-LL	120V AC DIN				120V AC DIN	DSHG06-3C2-A120N
4WEH25-E-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG06-3C2-A120
4WEH25-H-D12-E-LL	12V DC DIN	172		122	12V DC DIN	DSHG06-3C3-D12N
4WEH25-H-D12-E-BL	12V DC BOX				12V DC BOX	DSHG06-3C3-D12
4WEH25-H-D24-E-LL	24V DC DIN				24V DC DIN	DSHG06-3C3-D24N
4WEH25-H-D24-E-BL	24V DC BOX				24V DC BOX	DSHG06-3C3-D24N
4WEH25-H-R110-E-LL	120V AC DIN				120V AC DIN	DSHG06-3C3-A120N
4WEH25-H-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG06-3C3-A120
4WEH25-J-D12-E-LL	12V DC DIN	164		132	12V DC DIN	DSHG06-3C4-D12N
4WEH25-J-D12-E-BL	12V DC BOX				12V DC BOX	DSHG06-3C4-D12
4WEH25-J-D24-E-LL	24V DC DIN				24V DC DIN	DSHG06-3C4-D24N
4WEH25-J-D24-E-BL	24V DC BOX				24V DC BOX	DSHG06-3C4-D24N
4WEH25-J-R110-E-LL	120V AC DIN				120V AC DIN	DSHG06-3C4-A120N
4WEH25-J-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG06-3C4-A120
4WEH25-G-D12-E-LL	12V DC DIN	172		90	12V DC DIN	DSHG06-3C60-D12N
4WEH25-G-D12-E-BL	12V DC BOX				12V DC BOX	DSHG06-3C60-D12
4WEH25-G-D24-E-LL	24V DC DIN				24V DC DIN	DSHG06-3C60-D24N
4WEH25-G-D24-E-BL	24V DC BOX				24V DC BOX	DSHG06-3C60-D24N
4WEH25-G-R110-E-LL	120V AC DIN				120V AC DIN	DSHG06-3C60-A120N
4WEH25-G-R110-E-BL	120 V AC BOX				120 V AC BOX	DSHG06-3C60-A120

SUBPLATES

- IMPERIAL THREADS

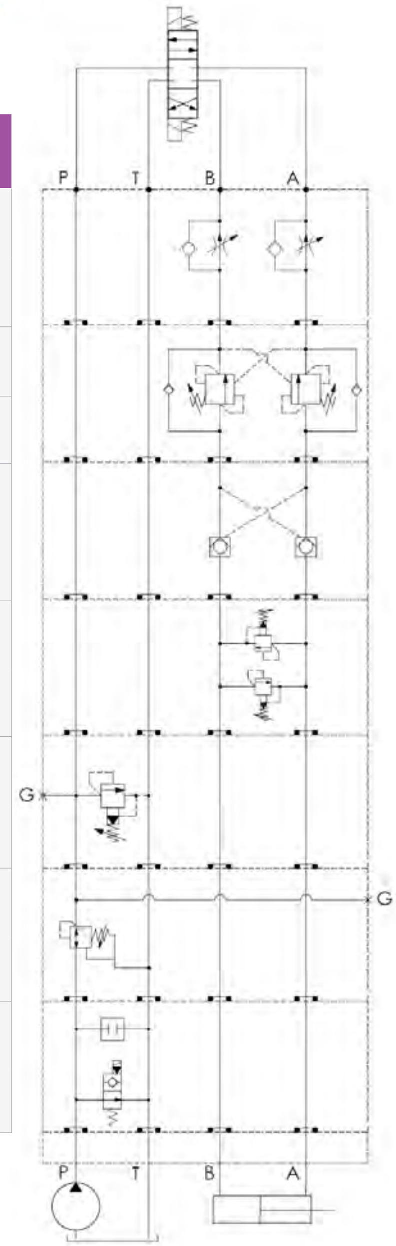
PART NO	DESCRIPTION
SPA07-SP-S16	ALUMINIUM, 3000 PSI, SAE-20, SIDE PORTS
DHGM-06-5090	CAST IRON, 5000 PSI, 3/4 NPT, BOTTOM PORTS
DHGM-06X-5090	CAST IRON, 5000 PSI, 1 NPT, BOTTOM PORTS





FUNCTION	PART NUMBER	CETOP	MAX GPM	HEIGHT	PSI RANGE
FLOW CONTROL METER "OUT"	MH03FDO-FR0A-FR0A-A01	D03	10.5	1.75	N/A
	MH05FDO-5A2-5A2-A01	D05	21	1.95	
COUNTERBALANCE VALVE (PILOT RATIO 3:1)	MH03CDW-CB3H-CB3H-A02	D03	10.5	1.75	1000 - 4000
	MH05CDW-CB3H-CB3H-A01	D05	21	1.95	2000 - 5000
LOCK VALVE (PILOT RATIO 3:1)	MH03CDW-CO20-CO20-A02	D03	10.5	1.75	N/A
	MH05CDW-CO20-CO20-A01	D05	21	1.95	
CROSS-OVER RELIEF (A - B)	MH03RDH-RP0A-RP0A-A01	D03	10.5	1.75	100 - 3000
	MH05RDH-RP0A-RP0A-A01	D05	21	1.95	
PRESSURE RELIEF P TO T PORT	MH03RPH-10A2-N02-A01	D03	10.5	1.75	100 - 3000
	MH05RPH-RD5A-N02-A01	D05	21	1.95	
PRESSURE REDUCING ON "P" PORT	MHP03PPW-PD0A-A02	D03	10.5	1.75	100 - 3000
	MHP05PPW-PD0A-A01	D05	21	1.95	
DERIVATIVE CIRCUIT	MH03RPJ-10A2-EP02*	D03	10.5	1.75	N/A
	MH05RPD-CP00-EP02*	D05	21	1.95	

* COIL MUST BE ORDERED SEPARATELY. USES EC04W ON PAGE



BOLT KITS

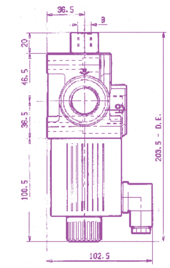
	PART NUMBER	LENGTH
CETOP D03	MBK01-325	1.57" + DIR. VLV.
	MBK01-350	1.75" + DIR. VLV.
	MBK01-490	1.57" + 1.57" + DIR. VLV.
	MBK01-500	1.57" + 1.75" + DIR. VLV.
	MBK01-525	1.75" + 1.75" + DIR. VLV.

	PART NUMBER	LENGTH
CETOP D05	MBK03-350	1.95" + DIR. VLV
	MBK03-550	1.95" + 1.95" + DIR. VLV

- MADE OF ALUMINUM
- 3500 PSI MAXIMUM PRESSURE
- INCLUDES MOUNTING KIT
- C10-2 CAVITY FOR RELIEF
- SAE-06 PRESSURE GAUGE PORT

OPTIONS

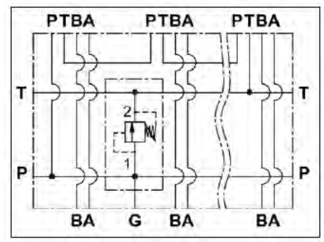
- NPT THREADS
- STEEL
- NUMBER OF STATIONS
- TYPE OF CAVITY FOR RELIEF



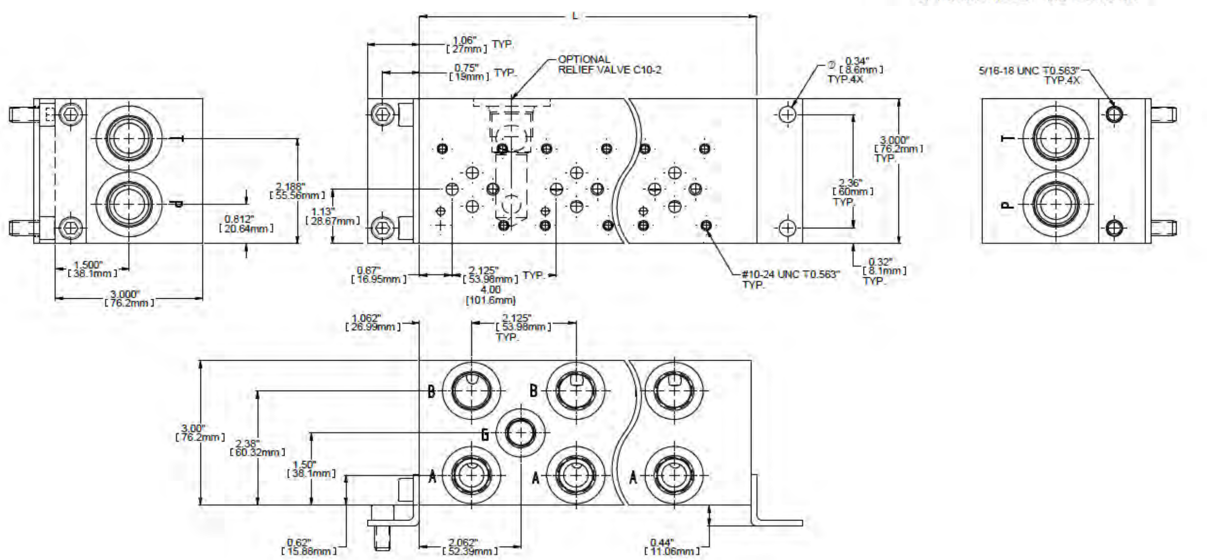
CETOP D03 / ISO 06 MANIFOLDS

- SERIES CIRCUIT

PART NUMBER	NUMBER OF STATIONS	PORTS		"L"
		P & T	A & B	DIM
BMA03 S02 S08 C10-2	2	SAE-10	SAE-08	4.25
BMA03 S03 S08 C10-2	3			6.37
BMA03 S04 S08 C10-2	4			8.50
BMA03 S05 S08 C10-2	5			10.62
BMA03 S06 S08 C10-2	6			12.75

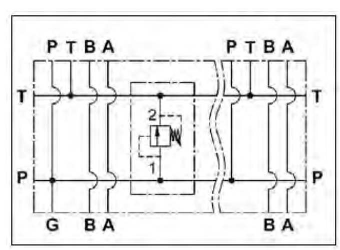


SERIES CIRCUIT WITH OPTIONAL RELIEF VALVE SHOWN



- PARALLEL CIRCUIT

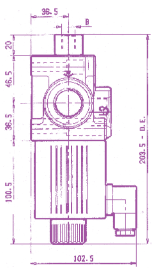
PART NUMBER	NUMBER OF STATIONS	PORTS		"L" DIM
		P & T	A & B	
BMA03 P02 S08 C10-2	2	SAE-10	SAE-08	4.25
BMA03 P03 S08 C10-2	3			6.375
BMA03 P04 S08 C10-2	4			8.5
BMA03 P05 S08 C10-2	5			10.63
BMA03 P06 S08 C10-2	6			12.75



PARALLEL CIRCUIT WITH OPTIONAL RELIEF VALVE SHOWN

- RELIEF & CAVITY PLUG

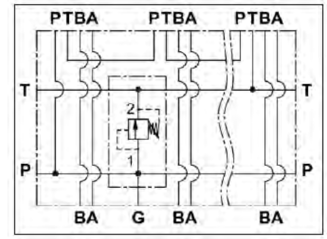
PART NUMBER	DESCRIPTION
DE-RVP-00-4000	RELIEF 1000-4000 PSI
CAV-PLUG-10-2	CAVITY PLUG



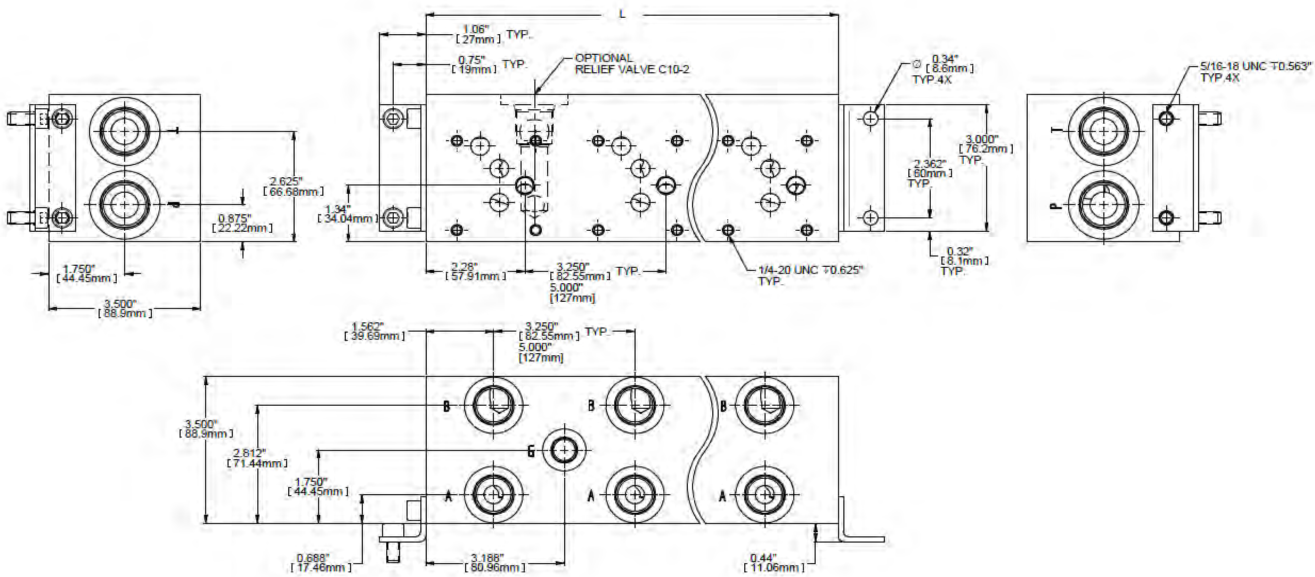
CETOP D05 / ISO 10 MANIFOLDS

- SERIES CIRCUIT

PART NUMBER	NUMBER OF STATIONS	PORTS		"L" DIM
		P & T	A & B	
BMA05 S02 S10 C10-2	2	SAE-12	SAE-10	6.75
BMA05 S03 S10 C10-2	3			9.75
BMA05 S04 S10 C10-2	4			13.00
BMA05 S05 S10 C10-2	5			16.25
BMA05 S06 S10 C10-2	6			19.5

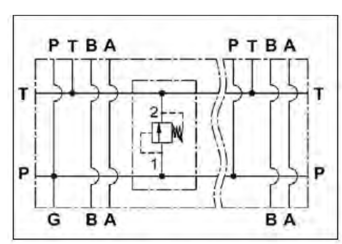


SERIES CIRCUIT WITH
OPTIONAL RELIEF VALVE SHOWN



- PARALLEL CIRCUIT

PART NUMBER	NUMBER OF STATIONS	PORTS		"L" DIM
		P & T	A & B	
BMA05 P02 S10 C10-2	2	SAE-12	SAE-10	6.50
BMA05 P03 S10 C10-2	3			9.75
BMA05 P04 S10 C10-2	4			13.00
BMA05 P05 S10 C10-2	5			16.25
BMA05 P06 S10 C10-2	6			19.5



PARALLEL CIRCUIT WITH
OPTIONAL RELIEF VALVE SHOWN

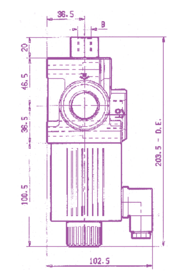
- RELIEF & CAVITY PLUG

PART NUMBER	DESCRIPTION
DE-RVP-00-4000	RELIEF 1000-4000 PSI
CAV-PLUG-10-2	CAVITY PLUG

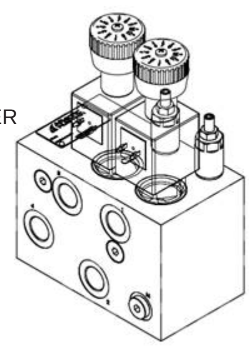
FEATURES AND BENEFITS

- HYDRAULIC CIRCUIT AND BLOCKS DESIGNED IN NORTH AMERICA
- ONE MANUFACTURE IN NORTH AMERICA
- SUN AND COMMON CAVITIES (OTHER ON REQUEST)
- POSSIBLE TO INTEGRATE CETOP AND SECTIONAL VALVES

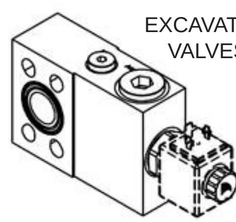
FLOW REGULATOR FOR AUXILIARY CIRCUIT



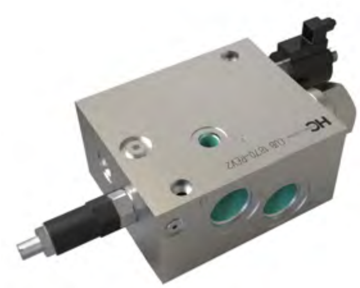
SALT SPRAYER VALVES



EXCAVATOR VALVES

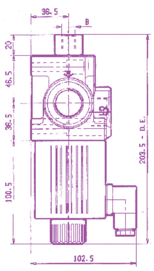


AUXILIAIRY QUICK HITCH

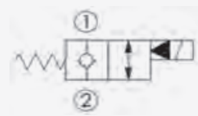
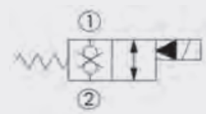


Delta Power Winner

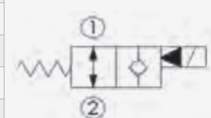
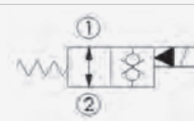
VALVES



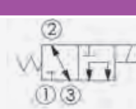
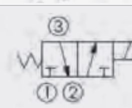
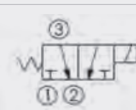
2 WAY, 2 POSITIONS, NORMALLY CLOSE

PART NUMBER	MAX GPM	MAX PSI	CAVITY	COIL	CIRCUIT
PB-S2B-00	8	3500	C8-2	P	
EP08W2A05M05	10	5000		EC04W	
DE-S2B-00	15	3500	C10-2	D	
EP10W2A05M05	17.5	5000		EC04W	
TT-S2B-00	25	3000	C12-2	D	
EP12W2A05M05	37.5	5000		EC04W	
SJ-S2B-00	30	3500	C16-2	D	
EP16W2A05M05	37.5	5000		EC04W	
DE-S2I-00	4	3000	C10-2	D	
EP08W2A31M05	10	5000	C8-2	EC04W	
EP10W2A31M05	17.5	5000	C10-2		
EP16W2A31M05	37.5	5000	C16-2		

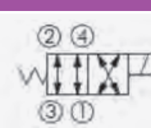
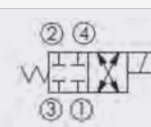
2 WAY, 2 POSITIONS, NORMALLY OPEN

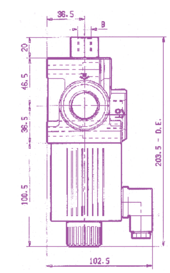
PART NUMBER	MAX GPM	MAX PSI	CAVITY	COIL	CIRCUIT
PB-S2D-00	10	3500	C8-2	P	
EP08W2A06M05	10	5000		EC04W	
DE-S2D-00	15	3500	C10-2	D	
EP10W2A06M05	17.5	5000		EC04W	
TT-S2D-00	30	3000	C12-2	D	
EP12W2A06M05	37.5	5000		EC04W	
SJ-S2D-00	40	3000	C16-2	D	
EP16W2A06M05	37.5	5000		EC04W	
EP08W2A32M05	10	5000	C8-2	EC04W	
EP10W2A32M05	17.5	5000	C10-2		
EP16W2A31M05	37.5	5000	C16-2		

3 WAY, 2 POSITIONS

PART NUMBER	MAX GPM	MAX PSI	CAVITY	COIL	CIRCUIT
ES08W3A11N04	2.5	3000	C8-3	EC04W	
DF-S3A-00	10	3000	C10-3	D	
TYPICALLY USED FOR SINGLE ACTING CYLINDER					
DF-S3B-00	8	3000	C10-3	D	
TYPICALLY USED AS A SELECTOR					

4 WAY, 2 POSITIONS

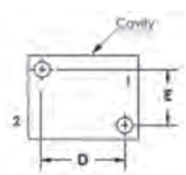
PART NUMBER	MAX GPM	MAX PSI	CAVITY	COIL	CIRCUIT
ES08W4A10N04	3	3000	C8-4	EC04W	
DG-S4A-00	10		C10-4	D	
ES08W4A11N04	4	3000	C8-4	EC04W	
DG-S4B-00	10		C10-4	D	



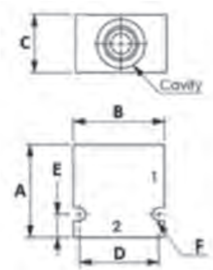
BODIES

- MADE IN ALUMINUM
- 3000 PSI MAXIMUM PRESSURE

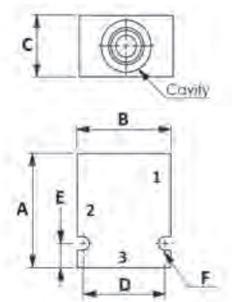
PART NUMBER	CAVITY	PORTS	DIMENSIONS					
			A	B	C	D	E	F
30102466	C8-2	SAE 06	2.0	2.0	1.25	1.50	1.50	1.50
30102359	C10-2	SAE 06	2.12	2.0	1.50	1.75	0.50	0.28
30102364		SAE 08						
30102813	C12-2	SAE 12	3.09	2.75	1.75	2.2	0.84	0.41
30102331	C16-2	SAE 12	3.0	3.0	2.0	2.44	0.75	
30102533	C8-3	SAE 06	2.5	2.25	1.25	1.75	0.25	0.28
30102354	C10-3	SAE 08	2.5	2.5	1.5	2.25	0.38	
30102535	C8-4	SAE 06	3.0	2.25	1.25	1.75	0.50	0.28
30102367	C10-4	SAE 08	3.25	2.5	1.5	2.25	0.38	



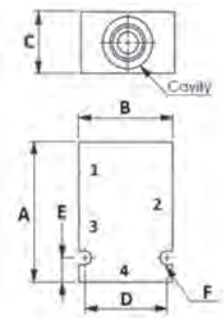
C8-2 BODY



C10-2 TO C16-2 BODIES



C8-3 AND C10-3 BODIES

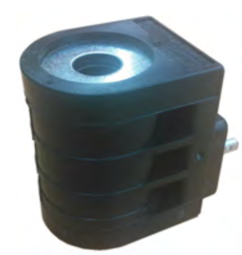


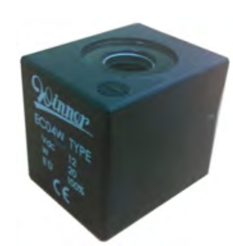
C8-4 AND C10-4 BODIES

COILS

- DIN CONNECTOR MODELS
- OTHER VOLTAGE & TYPE OF CONNECTION AVAILABLE
- LOW POWER CONSUMPTION AVAILABLE. FOR SUBSTANTIAL SAVING.

PART NUMBER	VOLTAGE	WATTS	I. D.	HEIGHT	WIDTH
P-HC-12	12V DC	19	1/2"	1.78	1.25
P-HC-24	24V DC				
P-HC-11	110V AC				
D-HC-12	12V DC	22	1/2"	2.03	1.56
D-HC-24	24V DC				
D-HC-11	110V AC				
L-HC-12	12V DC	22	5/8"	2.03	1.56
L-HC-24	24V DC				
L-HC-11	110V AC				
T-HC-12	12V DC	28	3/4"	1.96	2.38
T-HC-24	24V DC				
T-HC-11	110V AC				
EC04W-200HE	12V DC	20	1/2"	1.41	1.51
EC04W-200HD	24V DC				
EC04W-200HB	110V AC				

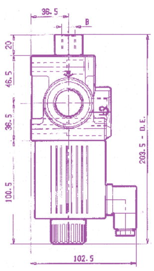




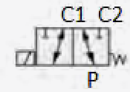
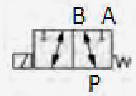
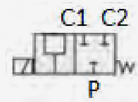
DIN CONNECTORS

PART NUMBER	DESCRIPTION
EMM43650A-DC-BLK	NO LED
EMM43650A-110RAC-LED	NO LED , WITH RECTIFIER (AC TO DC)
EMM43650A-DC-LED	WITH LED 12V/ 24V DC/AC
EMM43650A-110AC-LED	WITH LED 110V DC/AC

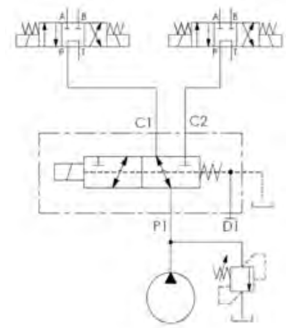
OTHER CONNECTORS AVAILABLE



3 WAY / 2 POSITIONS

MAX GPM	MAX PSI	PORTS	VOLTAGE	PART NUMBER	CIRCUIT
10.5	3625	SAE-08	12V DC	ES000277	 ES & VS MODELS
			24V DC	ES000212	
16	3625	SAE-08	12V DC	VS85-A-12VDC	
			24V DC	VS85-A-24VDC	
21	3000	SAE-08	12V DC	HVC-3/2-10-N-S08-12	 HVC MODEL
			24V DC	HVC-3/2-10-N-S08-24	
37	3625	SAE-12	12V DC	VS95-A-12VDC	
				ES000314	
			24V DC	VS95-A-24VDC	
				ES000315	
10.5	3625	SAE-08	12V DC	ES000376	
			24V DC	ES000377	
16	3625	SAE-08	12V DC	VS85-D-12VDC	
			24V DC	VS85-D-24VDC	
37	3625	SAE-12	12V DC	VS95-D-12VDC	
			24V DC	VS95-D-24VDC	

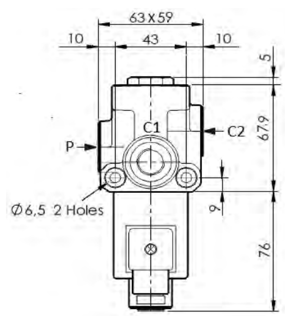
VS 95

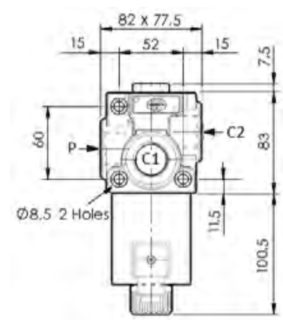


TYPICAL APPLICATION

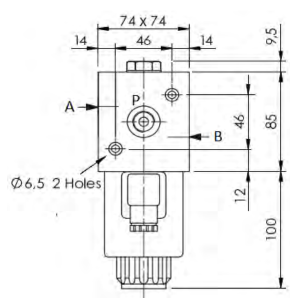
DIMENSIONS

VS85

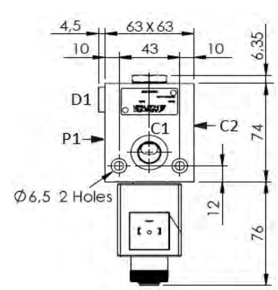




HVC



ES



COILS

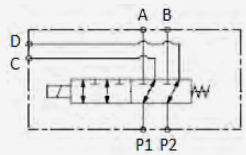
DIN CONNECTOR MODELS

- OTHER VOLTAGE & TYPE OF CONNECTORS AVAILABLE

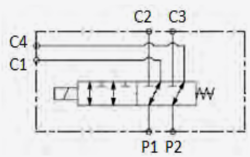
PART NUMBER	VOLTAGE	FITS ON
271-0520	12 VDC	VS85, VS155 & VS245F
271-0521	24 VDC	
281-0617	12 VDC	VS95, VS315 & VS285F
281-0618	24 VDC	
AB000167	12 VDC	ES000277 / 312 / 318 / 320 / 376
AB000168	24 VDC	ES000212 / 313 / 319 / 321 / 377
4WE6-12VDC COIL DIN	12 VDC	KVH, 2KVH & MOP
4WE6-24VDC COIL DIN	24 VDC	
4WE10-12VDC COIL DIN	12 VDC	HVC-3/2 & SVK10
4WE10-24VDC COIL DIN	24 VDC	
AB000156	12 VDC	ES000314 / 316
AB000157	24 VDC	ES000315 / 317

6 WAYS / 2 POSITIONS

MAX GPM	MAX PSI	PORTS	VOLTAGE	PART NUMBER	CIRCUIT
13.5	3625	SAE-08	12V DC	KVH6-S08-DC1200	
				ES000320	
			24V DC	KVH6-S08-DC2400	
				ES000321	
16			12V DC	VS155-12VDC	
			24V DC	VS155-34VDC	
37		SAE-12	12V DC	ES000316	
				VS315-12VDC	
			24V DC	ES000317	
				VS315-24VDC	
50		1" BSP	12V DC	VS400-12VDC	
			24V DC	VS400-34VDC	

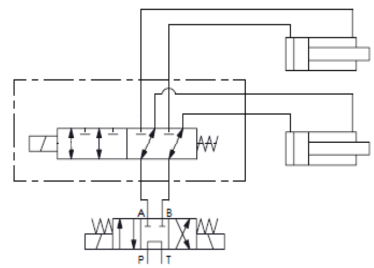


KVH MODELS

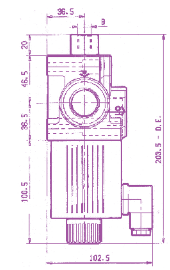


ES & VS MODELS


VS 315

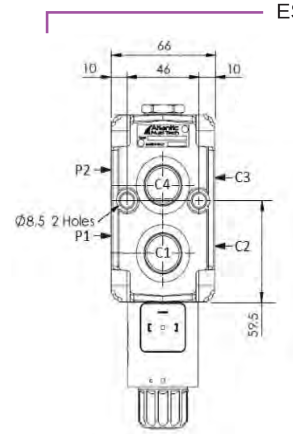


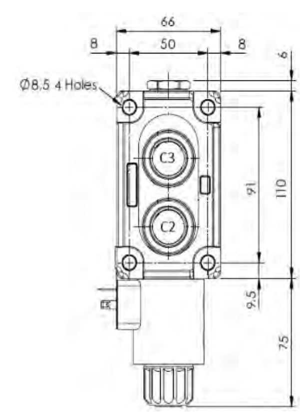
TYPICAL APPLICATION



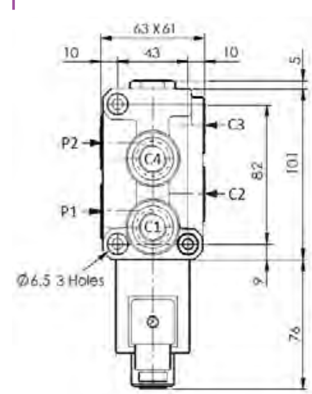
DIMENSIONS

ES320/321

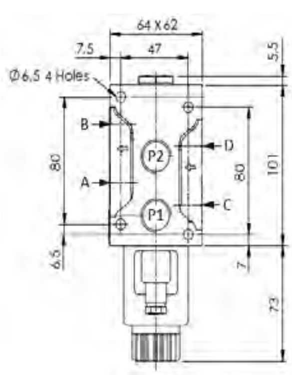




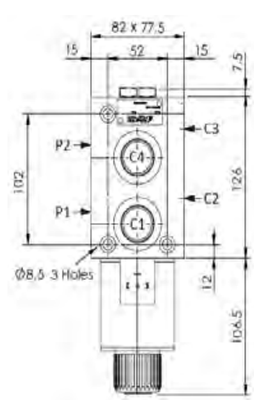
VS155



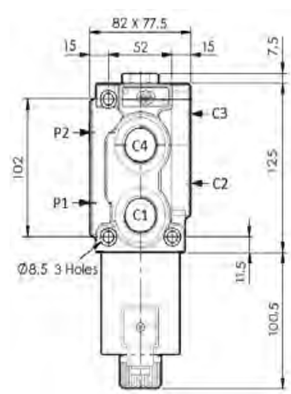
KVH



ES316/317



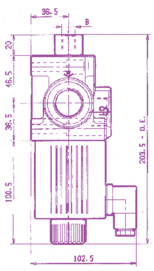
VS315



Hydro Custom

Atlantic Fluid Tech

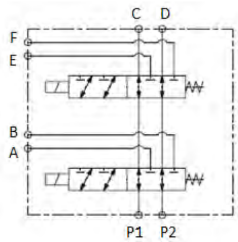
VALVES

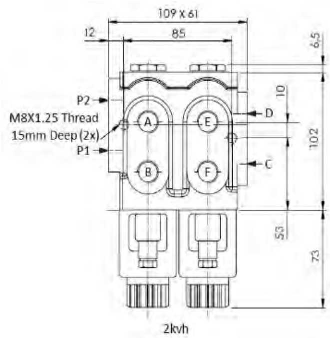


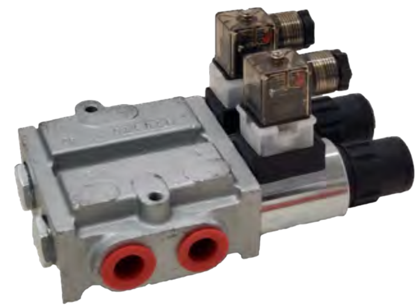
MONOBLOCK 8 WAYS

MAX GPM	MAX PSI	PORTS	VOLTAGE	PART NUMBER
13.5	3625	SAE-08	12V DC*	2KVH6-DC12-S08

*24V AVAILABLE FROM STOCK







STACKABLE 6 WAYS

<table>
<tr><th>MAX GPM</th><th>MAX PSI</th><th>PORTS</th><th>VOLTAGE</th><th>WAYS</th><th>PART NUMBER</th></tr>
<tr><td>6.5</td><td rowspan="11">3625</td><td>SAE-04</td><td>12V DC*</td><td>6</td><td>VS125F-12VDC</td></tr>
<tr><td rowspan="5">13.5</td><td rowspan="5">SAE-08</td><td rowspan="3">12V DC*</td><td>6</td><td>MOP066-S08-I1-DC12</td></tr>
<tr><td>8</td><td>MOP066-S08-I2-DC12</td></tr>
<tr><td rowspan="3">6</td><td>VS245F-12VDC</td></tr>
<tr><td>12V DC</td><td>ES000318</td></tr>
<tr><td>24V DC</td><td>ES000319</td></tr>
<tr><td rowspan="2">21</td><td rowspan="5">SAE-10</td><td rowspan="2">12V DC *</td><td>6</td><td>SVK10-DC12-S10-N1</td></tr>
<tr><td>8</td><td>SVK10-DC12-S10-N2</td></tr>
<tr><td rowspan="3">24</td><td>12V DC*</td><td rowspan="3">6</td><td>VS285F-12VDC</td></tr>
<tr><td>12V DC</td><td>ES000312</td></tr>
<tr><td>24V DC</td><td>ES000313</td></tr>
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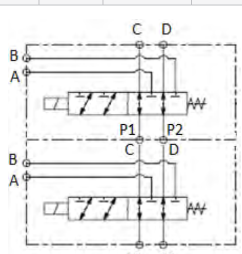
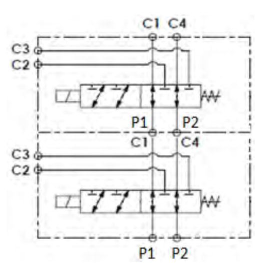
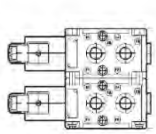


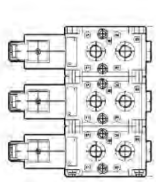
MOP & SKV MODELS
8 WAYS SHOWN



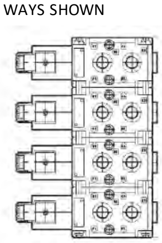
ES & VS MODELS
8 WAYS SHOWN



8 ways



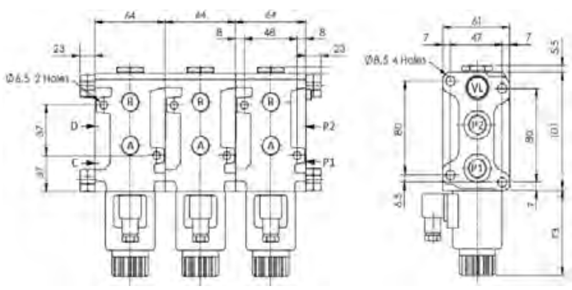
10 ways



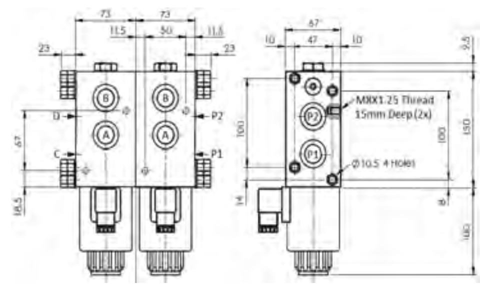
12 ways

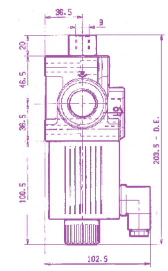
DIMENSIONS

SKV 8 WAYS

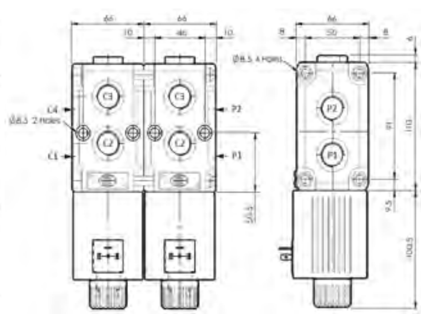


MOP 10 WAYS

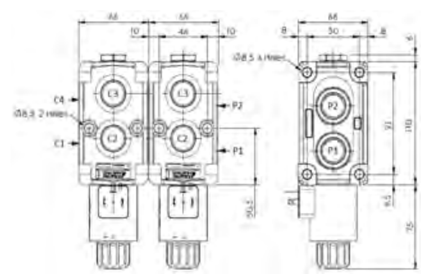




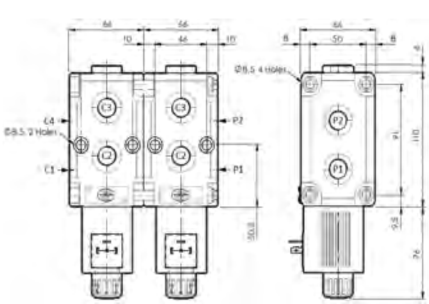
VS285F 8 WAYS



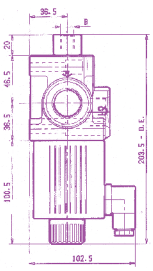
ES 8 WAYS



VS245F 8 WAYS



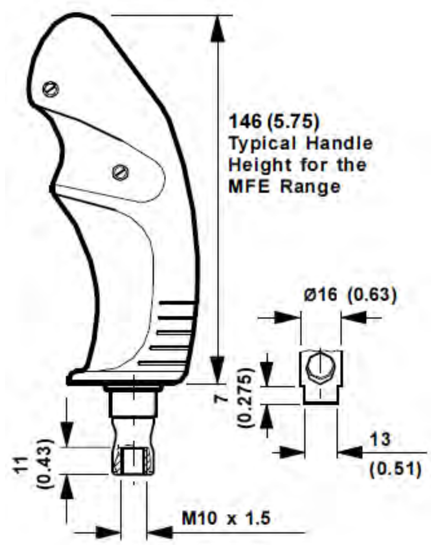
VALVES

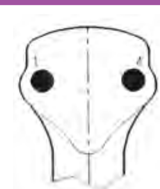
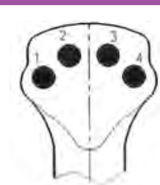


JOYSTICK HANDLES

GENERAL SPECIFICATIONS

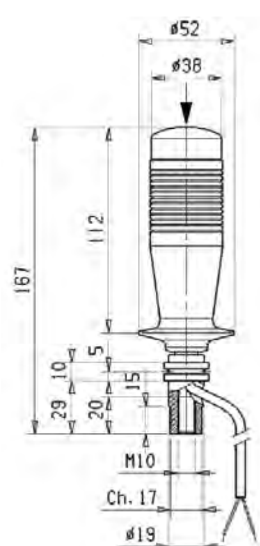
- POSSIBLE INSERTION OF PUSH BUTTONS: 1, 2, 4, 6.
- PVC CABLES WITH DIAMETER FROM 0.5 MM^2 AND 256 WIRES FOR CABLE, STANDARD WIRE LENGHT 350 MM FROM THE HANDLE'S BASE.
- CABLES TERMINAL SUPPLIED WITHOUT LEAD-IN WIRE.
- MAX CURRENT ON CONTACTS : 3 AMPERE.
- SAFETY PUSH BUTTON ON REQUEST.
- ELECTRICAL LIFE : 10^6 CYCLES (1 CYCLE = 2 SEC. "ON" / 2 SEC. OFF WITH CURRENT = 3A VOLTAGE = 12VDC AND WITH ARC SUPPRESSOR DIODE) 10^5 CYCLES IF USED WITH CURRENT = 3A VOLTAGE = 12VDC AND WITH DIRECT CONNECTION.
- MECHANICAL LIFE : 10^6 CYCLES.

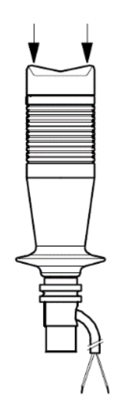


NUMBER OF PUSH BUTTON			
E9634006903	E9634006803	E9634006923	E9634006913
			

ECONOMIC HANDLES

PART NUMBER	DESCRIPTION
G9466012331	1 CONTACT
G9466012351	2 CONTACTS
E9634005553	2 DETENTS





3 WAYS PUSH-PULL DIVERTERS

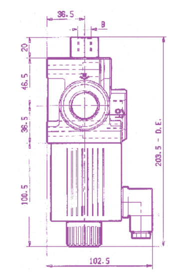
- 2500 PSI MAXIMUM PRESSURE
- 20 GPM MAXIMUM FLOW
- LEVER HANDLE, END CAP KIT ALSO AVAILABLE

PART NUMBER	PORTS
SS-2A1D	1/2 NPT
SS-3A1D	SAE 08

6 WAYS PUSH-PULL DIVERTERS

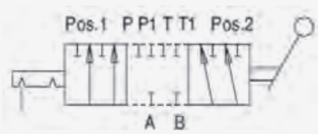
- 2500 PSI MAXIMUM PRESSURE
- KNOB, SPRING OFFSET, ENDCAP AVAILABLE

PART NUMBER	MAX GPM	PORTS
DS-1A1E	20	1/2 NPT
DS-3A1E		SAE-10
DS-4A1E	40	3/4 NPT
DS-5A1E		SAE-12



DOUBLE - 6 WAYS

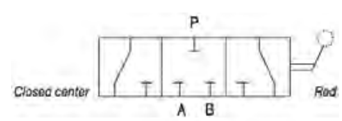
- 3600 PSI MAXIMUM PRESSURE
- 13 GPM MAXIMUM FLOW:
- 2 POSITIONS DETENDED
- PORTS: SAE 08

PART NUMBER	DESCRIPTION	DESCRIPTION
DF06/6-A-S		OPEN CENTER IN TRANSITION
DF06/6-C-S		CLOSED CENTER IN TRANSITION

3 WAYS ROTARY DIVERTERS

- CLOSED TRANSITION
- OPEN TRANSITION ALSO AVAILABLE

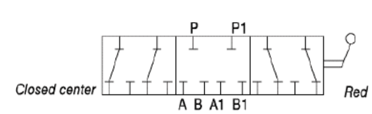
PART NUMBER	MAX PSI	MAX GPM	PORTS
FD3W-01-C-S	5075	8	SAE-06
FD3W-02-C-S	4560	16	SAE-08
FD3W-03-C-S	4060	24	SAE-10
FD3W-04-C-S	3625	32	SAE-12
FD3W-05-C-S	3200	48	SAE-16

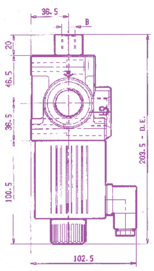


6 WAYS ROTARY FLOW DIVERTERS

- CLOSED TRANSITION
- OPEN TRANSITION ALSO AVAILABLE

PART NUMBER	MAX PSI	MAX GPM	PORTS
FD6W-01-C-S	5075	8	SAE-06
FD6W-02-C-S	4560	16	SAE-08
FD6W-03-C-S	4060	24	SAE-10
FD6W-04-C-S	3625	32	SAE-12
FD6W-05-C-S	3200	48	SAE-16





2 WAY HIGH PRESSURE

- CARBON STEEL ZINC PLATED
- SAE PORTS MODEL ALSO AVAILABLE FROM STOCK

PART NUMBER	MAX PSI	PORT SIZE
BKH-14-NPT-1125		1/4 NPT
BKH-38-NPT-1125	7250	3/8 NPT
BKH-12-NPT-1125		1/2 NPT
BKH-34-NPT-1125	5880	3/4 NPT
BKH-1-NPT-1125		1" NPT
BKH-114-NPT-1125	5145	1 1/4" NPT
BKH-112-NPT-1125		1 1/2" NPT

FULL PORTED MODELS

PART NUMBER	MAX PSI	PORT SIZE
SKH-1-NPT-3125		1" NPT
SKH-114-NPT-3125	5880	1 1/4" NPT
SKH-112-NPT-3125		1 1/2" NPT

LOCKING DEVICE

PART NUMBER	DESCRIPTION
LK1	FOR BKH 1/4" TO 1/2"
LK2	FOR BKH 3/4" TO 1 1/2"

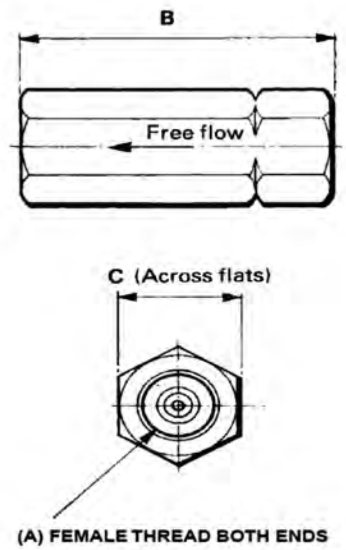
3 WAY HIGH PRESSURE CARBON STEEL ZINC PLATED

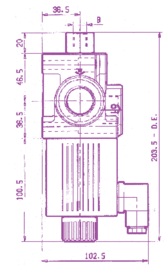
PART NUMBER	MAX PSI	PORT SIZE
WBV3L-400		1/4 NPT
WBV3L-600	7250	3/8 NPT
WBV3L-800		1/2 NPT
WBV3L-1200	4500	3/4 NPT
WBV3L-1600		1" NPT

CHECK VALVES

- FREE FLOW IN ONE DIRECTION AND BLOCKED IN THE OTHER
- ZINC CLEAR PLATED BODY
- METAL TO METAL SEAT
- SAE THREADS AVAILABLE

PART NUMBER	PORTS NPT	MAX PSI	MAX GPM	SPRING BY-PASS	DIMENSIONS B	DIMENSIONS C
HSP-1000-2-5	1/4"	6000	6	5 PSI	2.44	0.87
HSP-1000-2-65				65 PSI		
HSP-1000-3-5	3/8"	6000	9.5	5 PSI	2.87	0.95
HSP-1000-3-65				65 PSI		
HSP-1000-4-5	1/2"	5000	18	5 PSI	3.5	1.14
HSP-1000-4-65				65 PSI		
HSP-1000-6-5	3/4"	5000	30	5 PSI	4.25	1.5
HSP-1000-6-65				65 PSI		
HSP-1000-8-5	1"	5000	35	5 PSI	5.12	1.69
HSP-1000-8-65				65 PSI		
HSP-1000-10-5	1 1/4"	3000	60	5 PSI	5.56	2.4
HSP-1000-10-65				65 PSI		
HSP-1000-12-5	1 1/2"	3000	90	5 PSI	5.56	2.56
HSP-1000-12-65				65 PSI		
HSP-1000-16-5	2"	3000	145	5 PSI	7.91	3.15
HSP-1000-16-65				65 PSI		

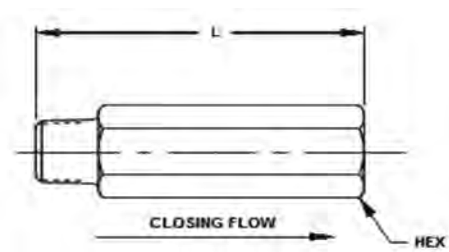


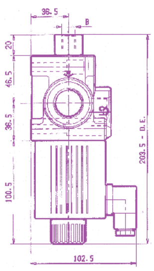


VELOCITY FUSES

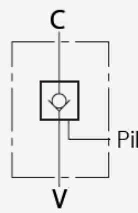
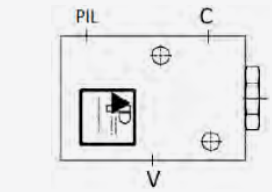
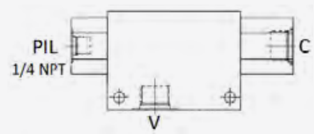
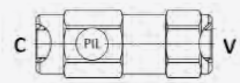
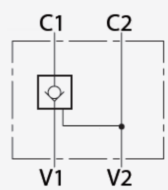
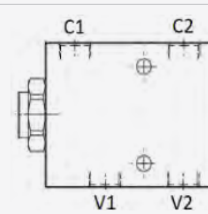
- PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF LINE FAILURE
- CLOSING TOLERANCE 15% / - 0%
- MAX PRESSURE: 3500 PSI
- RE-OPENING DIFFERENTIAL: 50 PSI
- FEMALE NPT TO MALE NPT

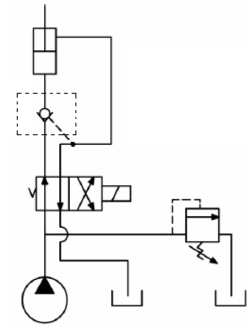
PART NUMBER	CLOSING GPM	PORTS NPT	DIMENSIONS L	DIMENSIONS HEX
28900-503-3	3	3/8"	2.7	0.88
28900-503-6	6			
28900-504-7	7	1/2"	3.0	1.13
28900-504-8	8			
28900-504-12	12			





SINGLE PILOT OPERATED CHECK VALVES

PART NUMBER	PORTS	MAX GPM	MAX PSI	PILOT RATIO	SCHEMATIC	CONFIGURATION
PS-POC-B-N	1/4 NPT	10	3000	4 : 1		
PS-POC-B-S	SAE-06					
RD-1637	3/8 NPT	15				
RD-1650	1/2 NPT	20				
LVPL-02	SAE-08	10.5	5075	6.2 : 1		
LVSL-02		9	3750	7 : 1		
LVSL-025	SAE-10			7 : 1		

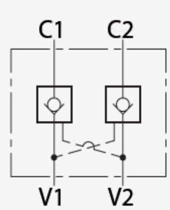
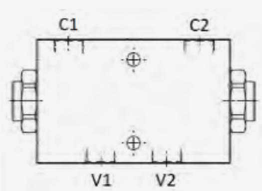
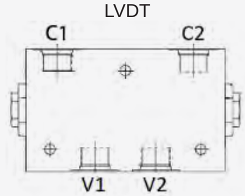
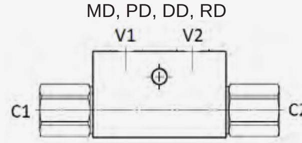


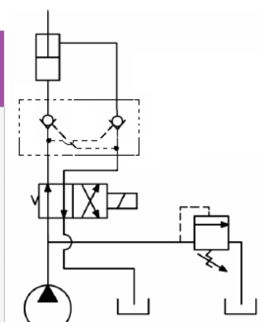
RD-16

LVPL

LVSL

DOUBLE PILOT OPERATED CHECK VALVES

PART NUMBER	PORTS	MAX GPM	MAX PSI	PILOT RATIO	SCHEMATIC	CONFIGURATION
MD-POC-B-S	SAE-04	5	3000	6.7 : 1		 LVDT  MD, PD, DD, RD  LVDL
LVDL-01	SAE-06	5	3750	4:1		
LVDT-01		7	5075			
PD-POC-B-S		10	3000			
DD-POC-B-N	3/8 NPT	15				
LVDL-02	SAE-08	9	3750	7 : 1		
LVDT-02		12		4 : 1		
RD-1450	1/2 NPT	20	3000			
LVDL-03	SAE-10	16	3750	3.4 : 1		
RD-1475	3/4 NPT	30	3000	4 : 1		



LVDT

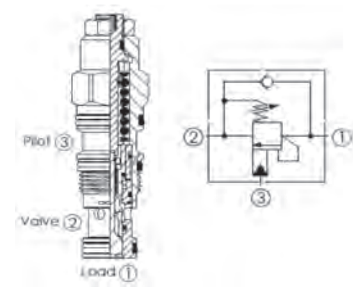
RD-14

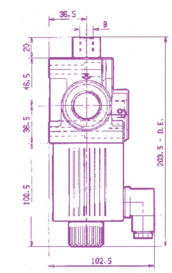
LVDL

COUNTERBALANCE VALVES

- INTERCHANGEABLE WITH SUN CARTRIDGES
- 5000 PSI MAXIMUM PRESSURE

PART NUMBER	MAX GPM	CAVITY	PSI RANGE	RATIO	SUN NO
CB11A33HL	15	T-11A	1015 - 4060	3: 1	CBCA-LHN
CB11A34JL			2030 - 5070	4.5: 1	CBCG-LJN
CB11A30JL			2030 - 5070	10: 1	CBCH-LJN
CB2A33HL	30	T-2A	2000 - 5000	3: 1	CBEA-LJN
CB2A34JL				4.5: 1	CBEG-LHN
CB2A30JL				10: 1	CBEH-LHN
CB17A3DJL	60	T-17A	2000 - 5000	3: 1	CBGG-LJN
CB17A3JJL				4.5: 1	CBGH-LJN

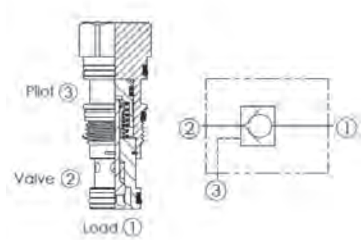




PILOT OPERATED CHECK VALVES

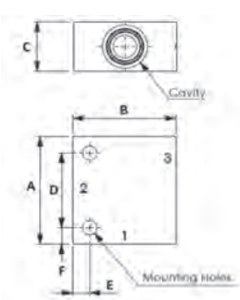
- 5000 PSI MAXIMUM PRESSURE
- PILOT RATIO: 3:1

PART NUMBER	MAX GPM	CAVITY	SUN NO
CO11A3020N	15	T-11A	CKCB-XCN
CO2A3020N	30	T-2A	CKEB-XCN
CO17A3020N	60	T-17A	CKGB-XCN
CO19A3020N	120	T-19A	CKIB-XCN

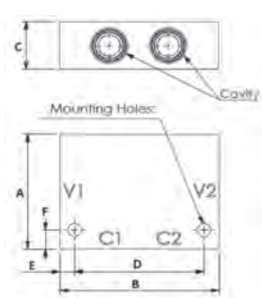


LINE MOUNT BODIES

- MADE IN ALUMINUM
- 3000 PSI MAXIMUM PRESSURE
- DUCTILE IRON AVAILABLE ON DEMAND



SINGLE BODY



DOUBLE BODY

SINGLE BODIES

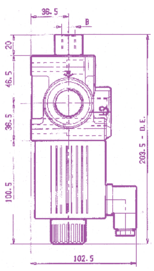
PART NUMBER	CAVITY	PORTS 1 & 2	PORT 3	SUN NO	DIMENSIONS A	B	C	D	E	F	HOLES (2)
11A-S-90-S06	T-11A	SAE 06	SAE 06	ECI	3.0	2.75	1.26	2.09	0.38	0.44	0.34
11A-S-90-S08	T-11A	SAE 08	SAE 06	ECJ							
2A-S-90-S12	T-2A	SAE 12	SAE 06	BCL	3.25	3.0	1.5	2.25	0.5	0.5	0.42
17A-S-90-S16	T-17A	SAE 16	SAE 06	HCM	4.25	4.0	2.36	2.75	0.75	0.75	
19A-S-90-S20	T-19A	SAE 20	SAE 06	KCN	5.0	5.0	3.0	4.0	0.5	0.5	

DOUBLE BODIES

PART NUMBER	CAVITY	PORTS	SUN NO	DIMENSIONS A	B	C	D	E	F	HOLES (2)
11A-D-X-S08	T-11A	SAE 08	YEJ	3.25	3.0	1.5	2.25	0.5	0.5	0.42
2A-D-X-S12	T-2A	SAE 12	YAL	4.25	4.0	2.36	2.75	0.75	0.75	
17A-D-X-S16	T-17A	SAE 16	YJM	5.0	5.0	3.0	4.0	0.5	0.5	

HC Hydro Custom D&N Fluid Control Prince

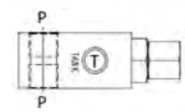
VALVES



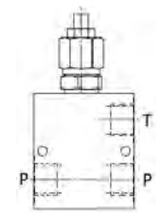
DIRECT ACTING RELIEF VALVES

PART NO	PORTS	PSI RANGE	MAX GPM	MAX PSI
RD-1837-S	3/8 NPT	1000 - 2500	8	2500
RD-1850-S	1/2 NPT		16	
RD-1850-H			16	
RD-1875-S	3/4 NPT		20	
PRL35-02-20A	SAE-08	580 - 3000	9	5075
PRL35-02-30A		1450 - 5075		
PRL80-03-20A	SAE-10	435 - 3770	21	
PRL80-04-20A	SAE-12			
PRL150-05-30A	SAE-16	725 - 5075	39	

RD

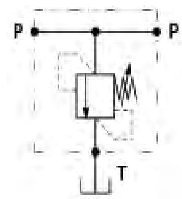


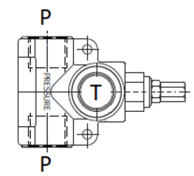
PRL



PILOT OPERATED RELIEF VALVES

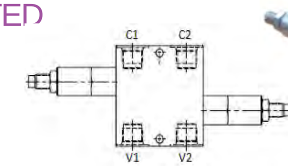
PART NO	PORTS	PSI RANGE	MAX GPM	MAX PSI
RV-4L	1/2 NPT	500 - 1500	30	3000
RV-4H		1500 - 3000		
RV-2L	3/4 NPT	500 - 1500		
RV-2H		1500 - 3000		
RV-1L	SAE-12	500 - 1500		
RV-1H		1500 - 3000		

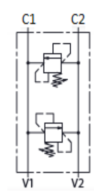


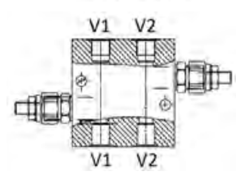


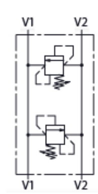
DUAL RELIEF VALVES, PILOT OPERATED

PART NO	PORTS	PSI RANGE	MAX GPM	MAX PSI
SA-00-15-15	SAE-08	150 - 1500	10	3000
SA-00-30-30		1500 - 3000		
SA-00-40-40		2500 - 4000		
DPRL35-02-30A	SAE-08	1450 - 5000	9	5000
DPRL80-04-30A	SAE-12	1880 - 5000	21	

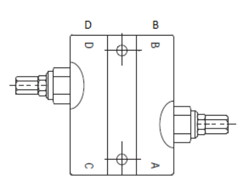


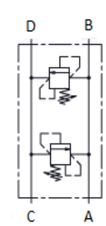






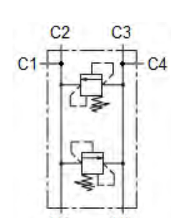
PART NO	PORTS	PSI RANGE	MAX GPM	MAX PSI
DRV-4LL	1/2 NPT	500 - 1500	30	3000
DRV-4HH		1500 - 3000		
DRV-5LL	SAE-08	500 - 1500		
DRV-5HH		1500 - 3000		
DRV-2LL	3/4 NPT	500 - 1500		
DRV-2HH		1500 - 3000		
DRV-1LL	SAE-12	500 - 1500		
DRV-1HH		1500 - 3000		





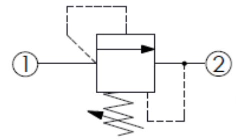
DUAL RELIEF VALVES, 6 PORTS

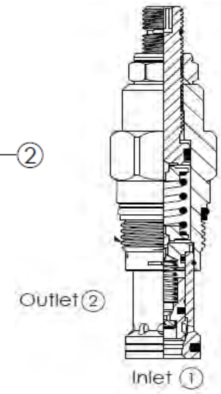
PART NO	PORTS	PSI RANGE	MAX GPM	MAX PSI
HIC-053	SAE-08	1450 - 5000	9	5000

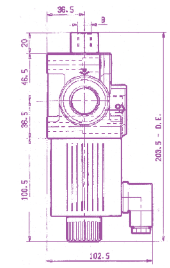


DIRECT ACTING RELIEF VALVES

PART NUMBER	MAX GPM	MAX PSI	PSI RANGE	CAVITY	SUN NO
DE-RVA-00-1500			200-1500		
DE-RVA-00-3000	8	4000	1500-3000	C10-2	
DE-RWA-00-3000			100-3000		
DE-RCA-00-3500	12	3500	250-3500		
RD10A25AL	25			T-10A	RDDA-LAN
RD3A25AL	50	5000	100-3000	T-3A	RDFA-LAN
RD16A25AL	100			T-16A	RDHA-LAN

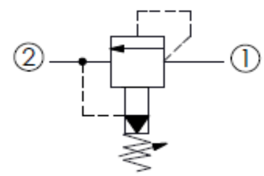






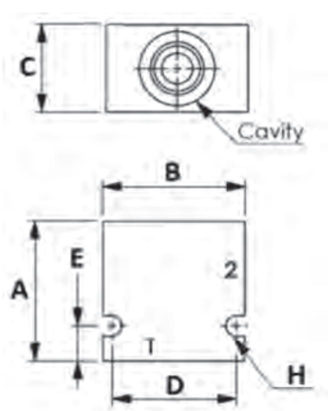
PILOT OPERATED RELIEF VALVES

PART NUMBER	GPM	MAX PSI	PSI RANGE	CAVITY	SUN NO
DE-RVP-00-4000	20	3500	500-3500	C10-2	
RP10A20AL	25			T-10A	RPEC-LAN
RP3A20AL	50	5000	100-3000	T-3A	RPGC-LAN
RP16A20AL	100			T-16A	RPIC-LAN

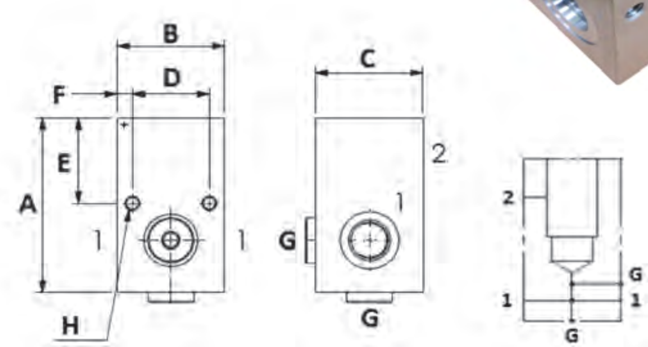


LINE MOUNT BODIES

- MADE IN ALUMINUM
- 3000 PSI MAXIMUM PRESSURE
- GAUGE PORT ON SELECTED MODELS
- DUCTILE IRON AVAILABLE ON DEMAND



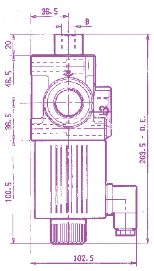
DIMENSION FOR C10-2 BODIES



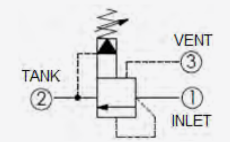
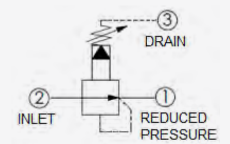
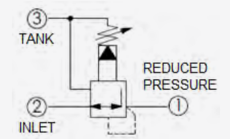
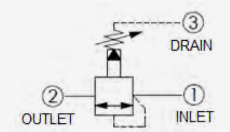
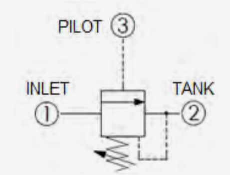
DIMENSION FOR T-* BODIES

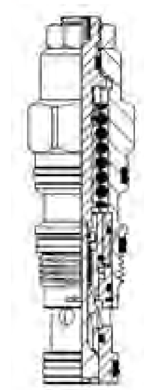
SINGLE BODIES

PART NUMBER	CAVITY	PORTS 1 & 2	SUN NO	DIMENSIONS							
				A	B	C	D	E	F	G	H (2)
30102359	C10-2	SAE 08		2.12	2.0	1.50	1.75	0.50	-	-	0.28
30102364		SAE 06									
10A-S-T-S08+G	T-10A	SAE 08	FEJ	2.94	1.75	1.75	1.25	1.44	0.25		1/4-20 UNC 1/2" DEEP
3A-S-T-S12+G	T-3A	SAE 12	CEL	3.25	2.0	2.0	1.50	1.37	0.25	1/4 NPT	
16A-S-T-S16+G	T-16A	SAE 16	IEM	4.0	3.0	2.25	-	3.0	0.5		0.42



PRESSURE CONTROLS

FUNCTION	PART NO	MAX GPM	MAX PSI	PSI RANGE	CAVITY	SCHEMATIC
VENTED RELIEF	RV11A30AL	15	5000	100 - 3000	T11-A	
	RV2A30AL	30			T2-A	
	RV17A30AL	60			T-17A	
	RV19A30AL	120			T-19A	
PRESSURE REDUCING	PB11A30AL	10	5000	100 - 3000	T11-A	
	PB2A30AL	20			T2-A	
	PB17A30AL	40			T-17A	
	PB19A30AL	80			T-19A	
PRESSURE REDUCING/ RELIEVING	DF-PRP-00-3000	10	3000	100 - 3000	C10-3	
	SK-PRP-00-3000	20		500 - 3000	C16-3	
	PP11A30AL	10	5000	100 - 3000	T11-A	
	PP2A30AL	20			T2-A	
	PP17A30AL	40			T-17A	
	PP19A30AL	80			T-19A	
SEQUENCE	SP11A30AL	15	5000	100 - 3000	T11-A	
	SP2A30AL	30			T2-A	
	SP17A30AL	60			T-17A	
	SP19A30AL	120			T-19A	
UNLOADING	DF-PWE-00-0425	10	3000	50-425	C10-3	
	DF-PWE-00-1500			425-1500		

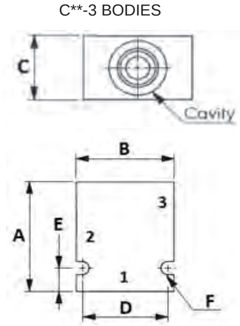


LINE MOUNT BODIES

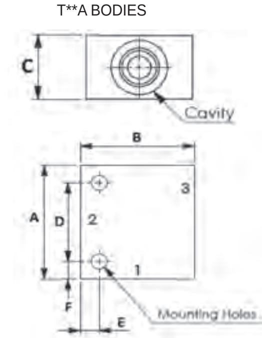
- 3000 PSI MAXIMUM PRESSURE
- DUCTILE IRON AVAILABLE ON DEMAND

PART NUMBER	CAVITY	PORTS 1 & 2	PORT 3	DIMENSIONS						
				A	B	C	D	E	F	HOLES (2)
30102354	C10-3	SAE 08	SAE 08	2.5	2.5	1.5	2.25	0.38	0.28	-
30102576	C16-3	SAE 12	SAE 12	4.0	4.0	2.0	3.38	0.88	-	0.38
11A-S-90-S-8	T-11A	SAE 08	SAE 06	3.0	2.75	1.26	2.09	0.38	0.44	0.34
2A-S-90-S12	T-2A	SAE 12	SAE 06	3.25	3.0	1.5	2.25	0.5	0.5	0.42
17A-S-90-S16	T-17A	SAE 16	SAE 06	4.25	4.0	2.36	2.75	0.75	0.75	-
19A-S-90-S20	T-19A	SAE 20	SAE 06	5.0	5.0	3.0	4.0	0.5	0.5	-

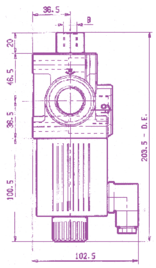
C**-3 BODIES



T**A BODIES



SUN VS WINNER INTERCHANGES

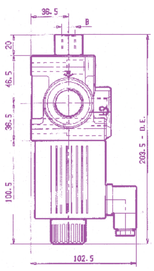


SUN	WINNER
CBCA-LHN	CB11A33HL
CBCA-LIN	CB11A33IL
CBCG-LJN	CB11A34JL
CBCG-LKN	CB11A34KL
CBCH-LJN	CB11A30JL
CBCH-LKN	CB11A30KL
CBEA-LHN	CB2A33HL
CBEA-LIN	CB2A33IL
CBEG-LJN	CB2A34JL
CBEG-LKN	CB2A3 L
CBEH-LJN	CB2A30JL
CBEH-LKN	CB2A30KL
CBGA-LHN	CB17A33HL
CBGA-LIN	CB17A33IL
CBGG-LJN	CB17A34JL
CBGG-LKN	CB17A34KL
CBGH-LJN	CB17A30JL
CBGH-LKN	CB17A30KL
CBIA-LHN	CB19A33HL
CBIA-LIN	CB19A33IL
CBIG-LJN	CB19A34KL
CBIG-LKN	CB19A34JL
CBIH-LJN	CB19A30KL
CBIH-LKN	CB19A30JL
CKBB-XCN	CO163A3020N
CKBD-XCN	CO163A3C20N
CKCB-XAN	CO11A3003N
CKCB-XCN	CO11A3020N
CKCD-XAN	CO11A3C03N
CKCD-XCN	CO11A3C20N
CKEB-XAN	CO2A3003N
CKEB-XCN	CO2A3020N
CKED-XAN	CO2A3C03N
CKED-XCN	CO2A3C20N
CKGB-XAN	CO17A3003N
CKGB-XCN	CO17A3020N
CKGD-XAN	CO17A3C03N
CKGD-XCN	CO17A3C20N
CKIB-XAN	CO19A3003N
CKIB-XCN	CO19A3020N
CKID-XAN	CO19A3C03N
CKID-XCN	CO19A3C20N
COBA-XCN	CC163A3020N
CODA-XCN	CC11A3020N
COFA-XCN	CO2A3020N
COHA-XCN	CO17A3003N

SUN	WINNER
COJA-XCN	CO19A3020N
CSAA-EXN	LS13A20NS04
CSAB-XXN	LS11A33NN
CSAC-EXN	LS13A22NS04
CSAD-XXN	LS11A30NN
CSAW-EXN	LS162A20NS04
CSAX-XXN	LS163A33NN
CSAY-EXN	LS162A22NS04
CSAZ-XXN	LS163A30NN
CXAD-XCN	CV162A2120
CXBA-XAN	CV162A2003
CXBA-XCN	CV162A2020
CXCD-XCN	CV13A2120
CXDA-XAN	CV13A2003
CXDA-XCN	CV13A2020
CXED-XCN	CV5A2120
CXFA-XAN	CV5A2003
CXFA-XCN	CV5A2020
CXGD-XCN	CV16A2120
CXHA-XAN	CV16A2003
CXHA-XCN	CV16A2020
CXID-XCN	CV18A2120
CXJA-XAN	CV18A2003
CXJA-XCN	CV18A2020
FDBA-KAN	FR13A20AK
FDBA-LAN	FR13A20AL
FDCB-KAN	FR5A20AK
FDCB-LAN	FR5A20AL
FDEA-KAN	FR16A20AK
FDEA-LAN	FR16A20AL
FDFA-KAN	FR18A20AK
FDFA-LAN	FR18A20AL
FXCA-XAN*	FR13A2F****N
FXDA-XAN*	FR5A2F****N
NCBB-LCN	NC162A21BCL
NCCB-KCN	NC13A21BCK
NCCB-LCN	NC13A21BCL
NCEB-KCN	NC5A21BCK
NCEB-LCN	NC5A21BCL
NCFB-KCN	NC16A21BCK
NCFB-LCN	NC16A21BCL
NCGB-KCN	NC18A21BCK
NCGB-LCN	NC18A21BCL
NFBC-KCN	NV162A2S40K
NFBC-LCN	NV162A2S40L
NFCC-KCN	NV13A2S48K

SUN	WINNER
NFCC-LCN	NV13A2S48L
NFCD-KFN	NV13A2884K
NFCD-LFN	NV13A2884L
NFDC-KAN	NV5A2S63K
NFDC-LAN	NV5A2S63L
NFDD-KGN	NV5A28127K
NFDD-LGN	NV5A28127L
NFEC-KEN	NV16A2S97K
NFEC-LEN	NV16A2S97L
NFED-KHN	NV16A28175K
NFED-LHN	NV16A28175L
NFFD-KIN	NV16A29216K
NFFD-LIN	NV16A29216L
PBDB-8DN	PP11A30D8
PBDB-8WN	PP11A30W8
PBDB-LAN	PB11A30AL
PBDB-LWN	PB11A30WL
PBFB-8DN	PP2A30D8
PBFB-8WN	PP2A30W8
PBFB-LAN	PB2A30AL
PBFB-LWN	PB2A30WL
PBHB-8DN	PP17A30D8
PBHB-8WN	PP17A30W8
PBHB-LAN	PB17A30AL
PBHB-LWN	PB17A30WL
PBJB-8DN	PP19A30D8
PBJB-8WN	PP19A30W8
PBJB-LAN	PB19A30AL
PBJB-LWN	PB19A30WL
PPDB-LAN	PP11A30AL
PPDB-LWN	PP11A30WL
PPFB-LAN	PP2A30AL
PPFB-LWN	PP2A30WL
PPHB-LAN	PP17A30AL
PPHB-LWN	PP17A30WL
PPJB-LAN	PP19A30AL
PPJB-LWN	PP19A30WL
RDBA-LAN	RD162A20AL
RDBA-LWN	RD162A20AW
RDDA-LAN	RD10A20AL
RDDA-LWN	RD10A20AW
RDFA-LAN	RD3A20AL
RDFA-LWN	RD3A20AW
RDHA-LAN	RD16A20AL
RDHA-LWN	RD16A20AW
RDJA-LAN	RD18A20AL

SUN	WINNER
RDJA-LWN	RD18A20AW
RPCC-LAN	RP162A20AL
RPCC-LWN	RP162A20AW
RPEC-8DN	RP10A20D8
RPEC-8WN	RP10A20W8
RPEC-LAN	RP10A20AL
RPEC-LWN	RP10A20AW
RPGC-8DN	RP3A20D8
RPGC-8WN	RP3A20W8
RPGC-LAN	RP3A20AL
RPGC-LWN	RP3A20AW
RPIC-8DN	RP16A20D8
RPIC-8WN	RP16A20W8
RPIC-LAN	RP16A20AL
RPIC-LWN	RP16A20AW
RPKC-8DN	RP18A20D8
RPKC-8WN	RP18A20W8
RPKC-LAN	RP18A20AL
RPKC-LWN	RP18A20AW
RSDC-8DN	RV11A30D8
RSDC-8WN	RV11A30W8
RSDC-LAN	SP11A30AL
RSDC-LWN	SP11A30WL
RSFC-8DN	RV2A30D8
RSFC-8WN	RV2A30W8
RSFC-LAN	SP2A30AL
RSFC-LWN	SP2A30WL
RSHC-8DN	RV17A30D8
RSHC-8WN	RV17A30W8
RSHC-LAN	SP17A30AL
RSHC-LWN	SP17A30WL
RSJC-8DN	RV19A30D8
RSJC-8WN	RV19A30W8
RSJC-LAN	SP19A30AL
RSJC-LWN	SP19A30WL
SCCA-LAN	SC11A30AL
SCCA-LWN	SC11A30WL
SCEA-LAN	SC2A30AL
SCEA-LWN	SC2A30WL
SCGA-LAN	SC17A30AL
SCGA-LWN	SC17A30WL
SCIA-LAN	SC19A30AL
SCIA-LWN	SC19A30WL

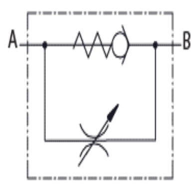


IN-LINE FLOW CONTROL VALVES

FLOW CONTROLS

• CONTROL FLOW IN ONE DIRECTION

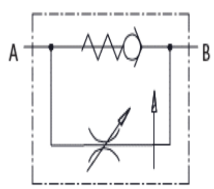
PART NO	PORTS	MAX PSI	MAX GPM
FC-02	1/4 NPT	5000	5
FC-03	3/8 NPT		8
FC-04	1/2 NPT		15
FRU990-03N	1/2 NPT		13
FC-06	3/4 NPT	3000	25



FLOW CONTROL, PRESSURE COMPENSATED

• CONTROL FLOW IN ONE DIRECTION

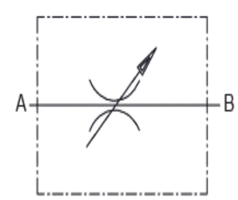
PART NO	PORTS	MAX PSI	MAX GPM
FRC90-01-SAE6	SAE-06	3625	4.5
FRC90-02-SAE8	SAE-08		



NEEDLE VALVES

• CONTROL FLOW IN BOTH DIRECTIONS

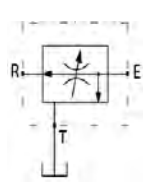
PART NO	PORTS	MAX PSI	MAX GPM
NV-02	1/4 NPT	5000	5
NV-03	3/8 NPT		8
NV-04	1/2 NPT		15
FRB-90-03N	1/2 NPT		13

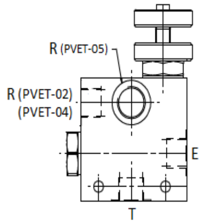


3 WAYS PRIORITY VALVE, EXCESS TO TANK, WITH KNOB

• 3000 PSI MAXIMUM PRESURE
• PRESSURE COMPENSATED

PART NO	MAX GPM		PORTS
	INLET	CONTROL	
PVET-02	10.5	6.5	SAE-08
PVET-04	39	23.5	SAE-12
PVET-05	74	50	SAE-16

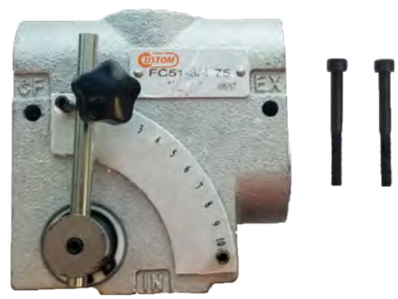


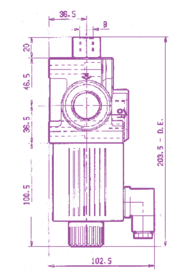


3 WAYS PRIORITY VALVE, EXCESS TO TANK, WITH LEVER

- 3000 PSI MAXIMUM PRESURE
- 30 GPM MAXIMUM FLOW

PART NO	EQUIVALENT	PORTS	CONTROL FLOW
W-1950-8	FC51-1/2 37	1/2 NPT	0 - 8 GPM
W-1908-8	FC51-8	SAE-08	
W-1950-16	FC51-1/2	1/2 NPT	0 - 16 GPM
W-1975-30	FC51-3/4	3/4 NPT	0 - 30 GPM
W-1912-30	FC51-12	SAE-12	





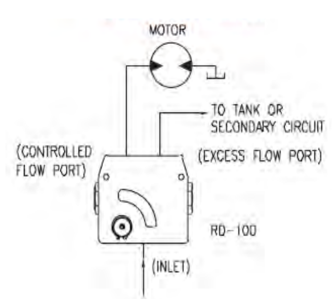
MODEL WITH RELIEF			
PART NO	EQUIVALENT	PORTS	CONTROL FLOW
WR-1937-8	FCR51-3/8	3/8 NPT	0 - 8 GPM
WR-1950-16	FCR51-1/2	1/2 NPT	0 - 16 GPM
WR-1975-30	FCR51-3/4	3/4 NPT	0 - 30 GPM
WR-1912-30	FCR51-12	SAE-12	

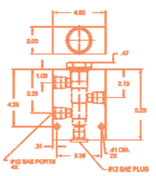
W, WR & FC MODELS

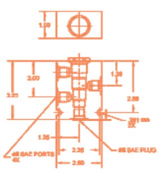
PART NO		PORTS	CONTROL FLOW
SIDE PORTS	TOP PORTED		
RD-1937-8	RD-137-8	3/8 NPT	0 - 8 GPM
RD-1950-8	RD-150-8	1/2 NPT	
RD-1908-8	RD-108-8	SAE-08	
RD-1950-16	RD-150-16	1/2 NPT	0 - 16 GPM
RD-1975-16	RD-175-16	3/4 NPT	
RD-1975-30	RD-175-30	3/4 NPT	0 - 30 GPM
RD-1912-30	RD-112-30	SAE-12	

RD-1950

MODEL WITH RELIEF			
PART NO		PORTS	CONTROL FLOW
SIDE PORTS	TOP PORTED		
RDRS-1950-16	RDRS-150-16	1/2 NPT	0 - 16 GPM
RDRS-1975-30	RDRS-175-30	3/4 NPT	0 - 30 GPM





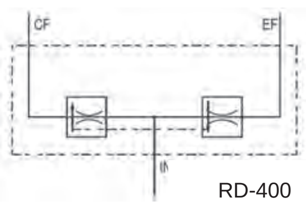


FIXED FLOW PRIORITY DIVIDERS

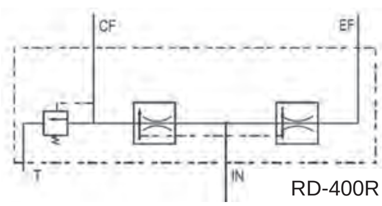
- 3000 PSI MAXIMUM PRESSURE
- 30 GPM MAXIMUM FLOW
- OTHER FIXED FLOW AVAILABLE: 1,5 TO 14 GPM

PART NO	FIXED FLOW	RELIEF	INLET & EXCESS PORT	CONTROL FLOW PORT
RD-405-3	3 GPM	NO	3/4 NPT	1/2 NPT
RD-405-6	6 GPM			
RD-405-R3	3 GPM	YES		
RD-405-R6	6 GPM			
RD-412-1,5	1,5 GPM	YES	SAE 12	SAE 08

RD-400



RD-400



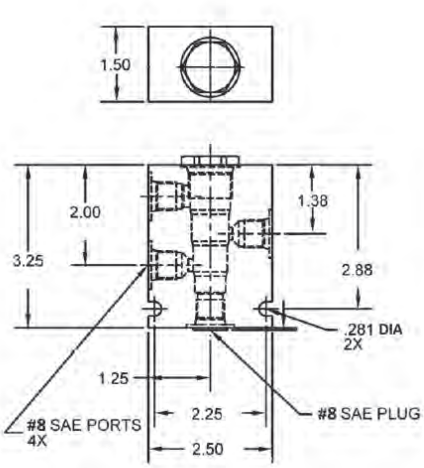
RD-400R

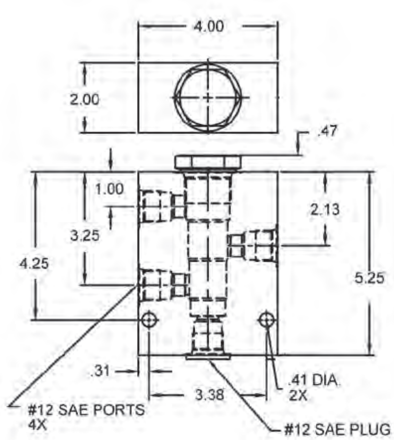
RD-400R

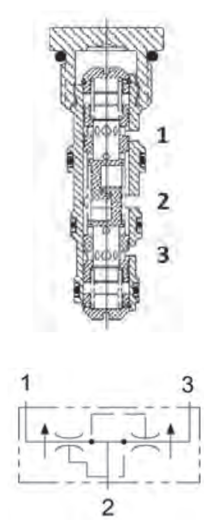
PRESSURE COMPENSATED FLOW DIVIDERS

- DIVIDER / COMBINER
- 3000 PSI MAXIMUM PRESSURE
- PRECISE AT +/- 10% ACCURACY
- COMMON CAVITIES

PART NUMBER	INLET FLOW	PORT SIZE
DG-FDA-00-50-03	2-3 GPM	SAE 08 (USE BODY 30102362)
DG-FDA-00-50-06	3-6 GPM	
DG-FDA-00-50-09	6-9 GPM	
DG-FDA-00-50-12	9-12 GPM	
SN-FDA-00-50-15	8-15 GPM	SAE 12 (USE BODY 30102577)
SN-FDA-00-50-25	15-25 GPM	
SN-FDA-00-50-40	20-40 GPM	







GEAR DIVIDERS

- SPLIT FLOW EQUALLY WITH +/- 1,5% ACCURACY
- INTEGRATED RELIEFS TO REALIGN CYLINDERS WHEN THEY REACH END OF CYCLE
- FOR QUIETER OPERATION, SELECT SPEED AT REC FLOW


9RV02A49


9RV02B06

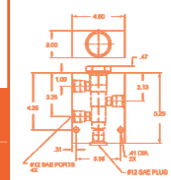
PART NUMBER	NUMBER OF SECTIONS	PO3/REV.	RPM		GPM		MAX PSI	PORTS SIZE	
			MIN	MAX	MIN	MAX		IN	OUT
9RV02B01	2	0.01	1155	7392	0.1	0.64	3045	SAE-4	SAE-4
9RV02B06	2	0.05	1200	5867	0.53	1.27	3045		
9RV02B20	2	0.13	1175	6095	1.32	6.86	3190	SAE-8	SAE-6
9RV02B27	2	0.26	1060	5400	2.38	12.16	3190		
9RV02B34	2	0.48	1082	4520	4.5	18	3045		
9RV02B49	2	0.85	1200	2500	8.88	18.4	3000	SAE-12	SAE-10
9RV04B20	4	0.13	1175	6095	2.64	13.72	3190	SAE-8	SAE-6
9RV04B27	4	0.26	1060	5400	4.76	24.32	3190		

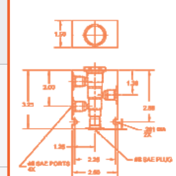
- SPLIT FLOW EQUALLY WITH +/- 2% ACCURACY
- INTEGRATED RELIEFS TO REALIGN CYLINDERS WHEN THEY REACH END OF CYCLE
- FOR QUIETER OPERATION, SELECT SPEED AT RECOMMANDED FLOW
- CAN BE USE INTERNAL OR EXTERNAL DRAIN
- AVAILABLE FROM 2 TO 16 SECTIONS

PART NUMBER	NUMBER OF SECTIONS	PO3/REV.	RPM		GPM		MAX PSI	PORTS SIZE	
			MIN	MAX	MIN	MAX		IN	OUT
PM2-RV **	2	0.11	500	3500	0.5	3.5	2000	1/2 NPT	3/8 NPT
PM6-RV **	2	0.32			1.35	9.5	1500		
HPR23	2	0.70			3.0	21	3000	SAE 16	SAE 12
HPR27	2	1.46			6.3	44	3000		
PPM2-RV **	4	0.11			1.0	7.0	1500	1/2 NPT	3/8 NPT
HPR21-59	4	0.41			3.57	25	3000	SAE 16	SAE 12
HPR23-59	4	0.70			6	42	3000		

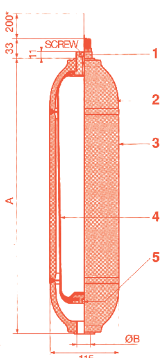
*** Model available without reliefs*

DIVIDERS





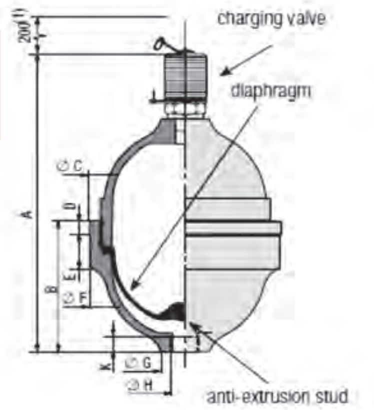
ACCUMULATORS



ASA MODELS

- DIAPHRAGM TYPE
- REPAIRABLE
- SCHRADER VALVE ON TOP

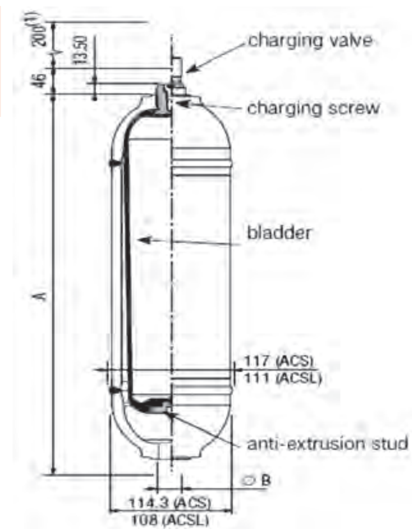
PART NUMBER	VOLUME	MAX PSI	PORT "H"	DIM "A"	DIAM. "C"
060932	0.2 L	5880	G 1/4"	5.91"	3.33"
060972	0.5 L		G 3/8"	7.24"	4.49"
060782	0.7 L	3675		7.76"	4.7"
060110	1 L	5880	M18X1.5		6.44"



ACSA & ACSL MODELS

- ECONOMICAL
- NON-REPAIRABLE
- BLADDER TYPE

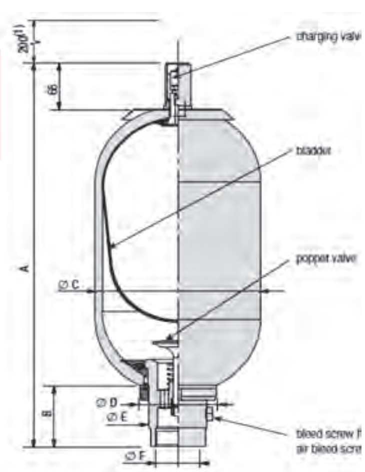
PART NUMBER	VOLUME	MAX PSI	PORT "B"	DIM "A"	VALVE
068275	0.7 L	3000	SAE 08	6.93"	SCREW
066845		4800			
065947					SCHRADER
068280	1 L	3000		9.69"	SCREW
066855		4800			
065965					SCHRADER
065945	1.5 L	4800		15.4"	SCREW
066865				12.4"	SCREW
068525	2L	3000			SCHRADER
066875	2.5 L	4800	SAE 08	18.27"	SCREW
066685			SAE 12		SCHRADER
066885	4 L	4800	SAE 08	27.4"	SCREW
066690			SAE 12		SCHRADER



ABVE MODELS

- BLADDER TYPE
- REPAIRABLE
- SCHRADER VALVE ON TOP

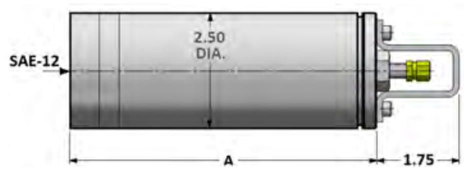
PART NUMBER	VOLUME	MAX PSI	PORT "B"	DIM "A"	DIAM. "C"
066850	4 L	5145	SAE 20	17.24"	6.7"
066860	10 L	4800		22.8"	9.02 "
066870	20 L			34.6"	
066880	32 L			55.12"	
066890	50 L			75.35"	



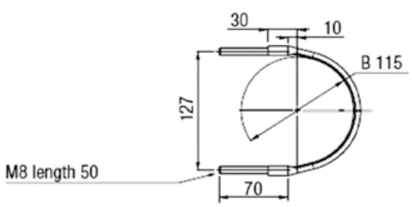
PISTON ACCUMULATORS

- 3000 PSI MAXIMUM WORKING PRESSURE
- DESIGNED FOR MOBILE APPLICATION
- REACT FAST
- LONG SERVICE LIFE
- REPAIRABLE
- COMPACT DESIGN
- COMMON SHRADER VALVE

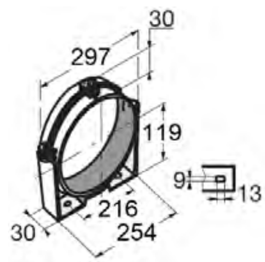
PART NO	VOLUME (IN^3)	DIM "A"
AC-0006-3	6	6.50
AC-0024-3	24	12.25
AC-0052-3	52	21.25



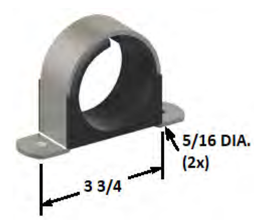
FIXATION CLAMPS



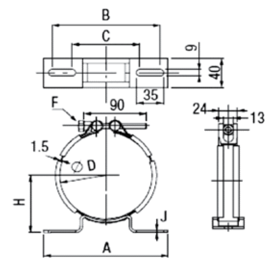
CD01028
FITS ON ACS MODELS

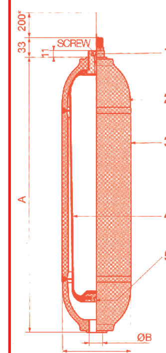


254007
FOR ABVE 10L TO ABVE 50L



AC BRACKET
FITS ON AC MODELS

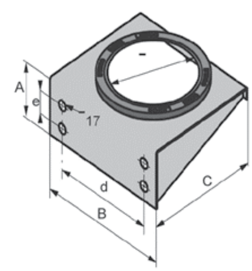




PART NO	USE WITH MODELS	DIMENSIONS (MM)					
		A	B	C	D	H	J
254021	ACS, ASA 0.5L / 0.7L	163	144	90	118.5	78	3
254022	ASA 1L & ABVE 4L	210	200	130	168	92	4

FIXATION SEAT

PART NO	USE WITH MODELS	DIMENSIONS (MM)					
		DIA.	A	B	C	d	e
254012	ABVE4	108	80	210	175	150	40
254008	ABVE10 TO ABVE50	152	100	260	225	200	



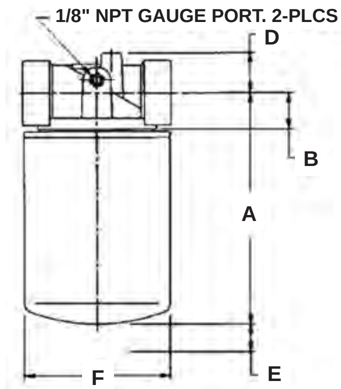
CHARGING KIT

066650 COMPLETE KIT
- ADAPTS TO MOST OF VALVES
- INCLUDES HOSE

066660 CHARGING KIT
ADAPTS TO MOST OF VALVES

701630 (NO GAUGE)
FITS ON SCHRADER VALVES ONLY

704230
HOSE KIT
FOR 701630



CP-1500 SERIES

CP-1520 SERIES

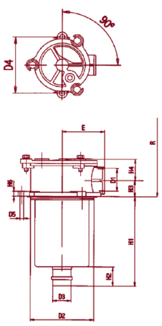
PART NUMBER	PORTS	POST THREAD	MAX GPM	MAX PSI	A	B	C	F
CP380	3/8 NPT	3/4" - 16 UNF	7	200	3.9	0.6	0.4	3.1
CP750	3/4 NPT	1" - 12 UNF	25	200	6.2	1.1	0.8	3.7
CP1000	1" NPT	1" - 12 UNF	25	200	6.2	1.1	0.8	3.7
CP1280	1 1/4 NPT	1 1/2 -16 UNF	60	150	8.1	1.2	1.2	5
CPL1280					12.2	1.2		
CP1500	1 1/2 NPT	1 1/2 -16 UNF	120	150	REFER TO LENZ CATALOG			
CP1520								

PORT	MICRONS	ASSEMBLY	HEAD	ELEMENT
3/8 NPT	10	CP380-1018	CP-380	CP-1018
	40	CP380-4018	-	CP-4018
3/4 NPT	10	CP750-10P	CP751-25	CP752-10
	25	CP750-30P	-	CP752-30
	140	-	-	CP752-100M
1" NPT	10	CP1010-10P	CP1011-R	CP752-10
	25	-	-	CP750-30
	140		-	CP752-100M
1 1/4 NPT	10	CP1280-10P	CP1281-25	CP1282-10
	25	CP1280-30P	-	CP1282-30
	140	-	-	CP1282-100M
	10		-	CPL1282-10
1 1/2 NPT	10	-	CP1501-25	CP1282-10 (2X)
	25			CP1282-30 (2X)
	10		CP1521-25	CP1282-10 (2X)
	25			CP1282-30 (2X)

MC-12
RETURN LINE INDICATING GAUGE FOR 15 PSI FILTER APPLICATIONS
2" MULTICOLOR
0-12 PSI GREEN
12-15 PSI YELLOW
15-60 PSI RED (SERVICE FILTER)

MC-20
RETURN LINE INDICATING GAUGE FOR 25 PSI FILTER APPLICATIONS
2" MULTICOLOR
0-20 PSI GREEN
21-24 PSI YELLOW
25-60 PSI RED (SERVICE FILTER)

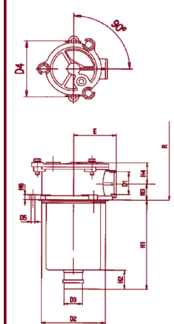
PLEASE ADD "1&3" AFTER MODEL CODE TO INSTALL A GAUGE



TANK TOP RETURN FILTER

- 100 PSI MAXIMUM WORKING PRESSURE
- 10 MICRONS PAPER MEDIA
- OTHER MICRONS AND MEDIA AVAILABLE

PART NUMBER	MAX GPM	THREAD	MEDIA
LIT-750-10P	25	3/4 NPT	10 MICRONS PAPER
LIT-1250-10P	80	1 1/4 NPT	
LITA-1250-10P	80	SAE 20	

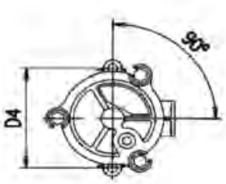


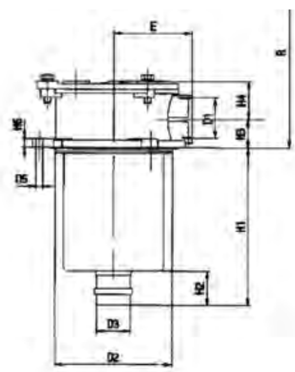
SPARE ELEMENTS FOR LIT-750

PART NUMBER	MEDIA
LIT-752-10P	10 MICRONS PAPER
LIT-752-25P	25 MICRONS PAPER
LIT-752-10SYN	10 MICRONS SYNTHETIC

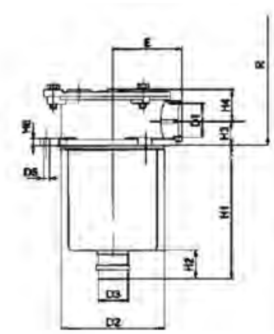
SPARE ELEMENTS FOR LIT-1250

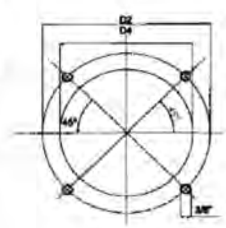
PART NUMBER	MEDIA
LIT-1252-10P	10 MICRONS PAPER
LIT-1252-25P	25 MICRONS PAPER
LIT-1252-10SYN	10 MICRONS SYNTHETIC





LIT-500/750/1000





LIT-1250

MEDIUM PRESSURE FILTER

- 350 PSI MAXIMUM WORKING PRESSURE
- OTHER MICRONS AND MEDIA AVAILABLE

PART NUMBER	MAX GPM	THREAD	MEDIA
DH-750-800-RR	18	3/4 NPT	10 MICRONS PAPER
DH-1250-800-RR	45	1 1/4 NPT	
DH1500-800-RR		1 1/2 NPT	25 MICRONS PAPER
DH1500-400-RR	55	1 1/2 NPT	

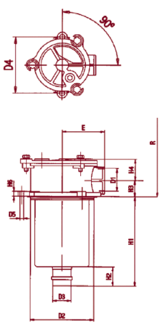
SPARE ELEMENTS FOR DH-750 & DH-1000

PART NUMBER	MEDIA
8-03	10 MICRONS PAPER
4-03	30 MICRONS PAPER
5062-100	100 WIRE MESH

SPARE ELEMENTS FOR DH-1250 & DH-1500

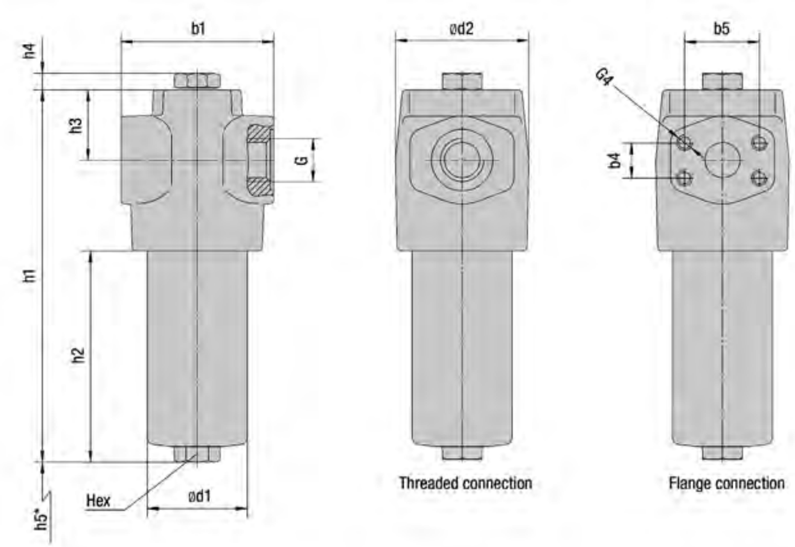
PART NUMBER	MEDIA
8-15	10 MICRONS PAPER
4-15	30 MICRONS PAPER
5064-100	100 WIRE MESH

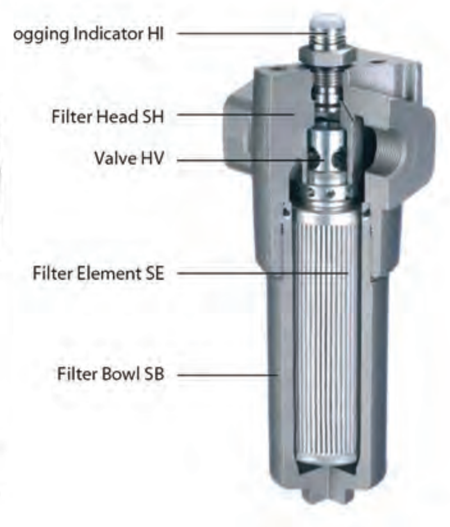
FILTERS



HIGH PRESSURE FILTER • TYPE SF

- 6000 PSI MAXIMUM WORKING PRESSURE
- 10 MICRONS SYNTHETIC MEDIA
- OTHER MICRONS AND MEDIA AVAILABLE





DIMENSIONS		FILTER SIZE SF			
		014	030	045	070
B1		4.10"	4.10"	5.04"	5.04"
D2		3.58"	3.58"	4.57"	4.57"
H3		1.89"	1.89"	1.95"	1.95"
H4		0.49"	0.49"	0.49"	0.49"
D1		2.68"	2.68"	3.74"	3.74"
H1		7.40"	10.00"	9.41"	11.73"
H2		3.07"	5.67"	4.06"	6.34"
H5	REC.	3.94"	6.69"	5.51"	7.87"
	MIN.	3.35"	3.35"	4.72"	4.72"
HEX		1.06"	1.06"	1.26"	1.26"

FILTER ASSEMBLY

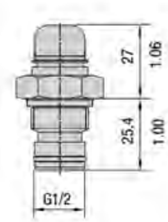
HIGH PRESSURE FILTER HOUSINGS / COMPLETE FILTERS • TYPE SF			
PART NUMBER	FLOW	MAX GPM	SIZE
SF 014 G 10 B / T U / B / A	60 L/MIN	14	014
SF 030 G 10 B / T U / B / A	110 L/MIN	30	030
SF 045 G 10 B / T U / B / A	160 L/MIN	45	045
SF 070 G 10 B / T U / B / A	240 L/MIN	70	070

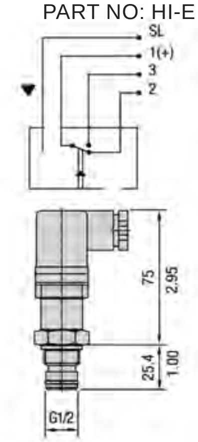
FILTER ELEMENTS • TYPE SE			
PART NUMBER	FLOW	MAX GPM	SIZE
SE 014 G 10 B / X	60 L/MIN	14	014
SE 030 G 10 B / X	110 L/MIN	30	030
SE 045 G 10 B / X	160 L/MIN	45	045
SE 070 G 10 B / X	240 L/MIN	70	070

CLOGGING INDICATORS

VISUAL
PART NO: HI-V

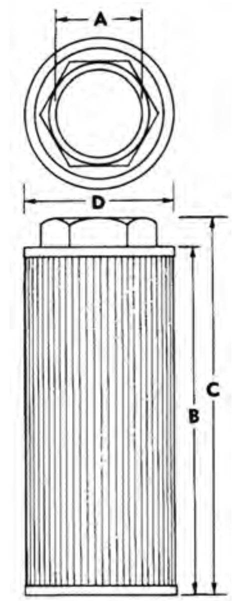
ELECTRIC
PART NO: HI-E



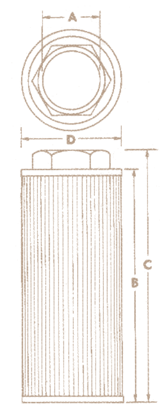


SUCTION STRAINERS

- PLATED STEEL PIPE NUT
- 100 MESH STAINLESS STEEL WIRE CLOTH
- OPTIONAL BY-PASS VALVE AVAILABLE
- EASILY CLEANABLE AND REUSABLE
- GOOD FOR MANY FLUID

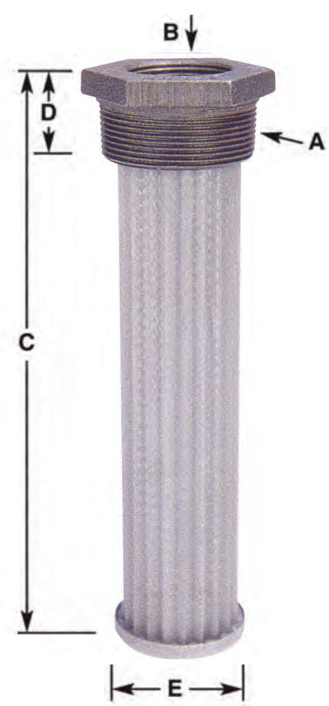


PART NUMBER	MAX GPM	A	B	C	D
		NPT			
49-3	3	3/8"	1.2"	2.5"	1.9"
49-4	5	1/2"	1.9"	3.1"	2.6"
49-5	8	3/4"	2.9"	3.6"	2.6"
49-10	10	1"	4.6"	5.4"	2.6"
49-20	20	1 1/4"	6.1"	6.9"	3"
49-30	30	1 1/2"	7.2"	8"	3.3"
49-50	50	1 1/2"	9.1"	9.9"	3.9"
49-50-2	50	2"	9.1"	9.9"	3.9"
49-75	75	2 1/2"	9.1"	10.1"	5.1"
49-100	100	3"	10.4"	11.8"	5.1"

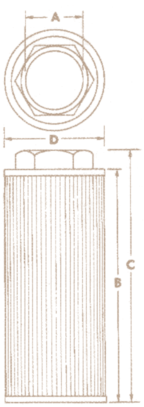


TANK MOUNT STRAINERS

- CAST IRON PIPE NUT
- 100 MESH STAINLESS STEEL WIRE CLOTH
- OPTIONAL BY-PASS VALVE AVAILABLE



PART NUMBER	MAX GPM	DIMENSIONS				
		NPT	NPT	C	D	E
		A	B			
LTM-3	3	3/4"	3/8"	4.0"	1.0"	0.9"
LTM-5	5	1"	1/2"	5.4"	1.1"	1.2"
LTM-10	10	1 1/4"	3/4"	8.2"	1.2"	1.4"
LTM-15	15	1 1/2"	1"	8.2"	1.2"	1.7"
LTM-25	25	2"	1 1/4"	9"	1.4"	2.1"
LTM-50	50	3"	2"	9.7"	1.7"	3"
LTM-100	100	4"	3"	11.3"	1.8"	4"



BAYONET FILLER BREATHERS

- ZINC PLATED CAP
- 160 GPM MAXIMUM FLOW
- 40 MICRONS (10 MICRONS AVAILABLE)
- STAINLESS STEEL BASKET (NYLON AVAILABLE)

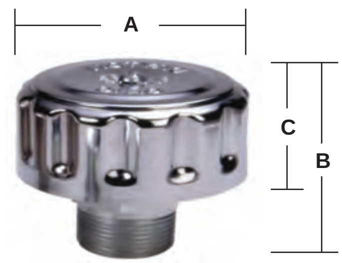
PART NUMBER	DESCRIPTION
57XL-40	STANDARD MODEL
AS-57XL-40	57XL40 WITH ANTI-SPLASH
LC-57XL-40	57XL40 WITH LOCKING CAP
57XL-40-P5	57XL40 PRESSURIZED TO 5 PSI

METAL THREADED BREATHERS

- ZINC PLATED CAP
- 40 MICRONS (10 MICRONS AVAILABLE)

PART NUMBER	NPT THREAD	MAX GPM	DIMENSIONS		
			A	B	C
BF-4	1/4"	28	1.4"	1.9"	0.7"
BF-6	3/8"				
BF-8	1/2"	245	2.6"	2.9"	0.9"
BF-12	3/4"	280	2.6"	3"	1.1"
BF-12-16 **			3"	3.3"	1.4"
BF-16	1"	525			

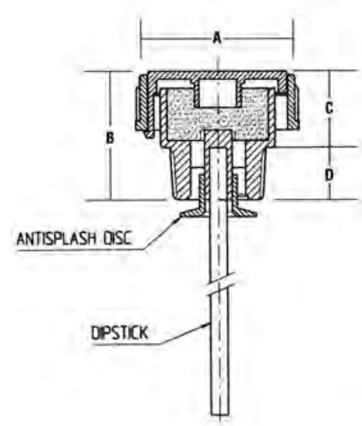
** CAN BE PRESSURIZED TO 5 PSI. PART NO IS BF-12-16-P5



NYLON THREADED BREATHERS

- 40 MICRONS (10 MICRONS AVAILABLE)
- ANTI-SPLASH & DIPSTICK OPTIONS ARE AVAILABLE

PART NUMBER	NPT THREAD	DIMENSIONS			
		A	B	C	D
NY-4	1/4"	1.2"	1.4"	0.8"	0.6"
NY-6	3/8"				
NY-8	1/2"	1.6"			
AS-NY-8	1/2" ANTI-SPLASH				
NY-12	3/4"	1.8"	1.5"	0.9"	0.6"
NY-7-12		2.8"	2"	1.4"	0.7"
AS-NY-7-12	3/4" ANTI-SPLASH				
NY-16	1"	1.8"	1.5"	0.9"	0.6"
NY-7-16		2.8"	2.1"	1.4"	0.7"
NY-7-20	1 1/4"	2.8"	2.2"	1.4"	0.8"
AS-NY-7-20-DIP5"	1 1/4" 5" DIPSTICK + ANTI-SPLASH				



PUSH ON BREATHERS

- 40 MICRONS
- CLIPS ON A 1.5" TUBE

PART NUMBER: NYPO-24

WELD-ON FILLER-BREATHERS

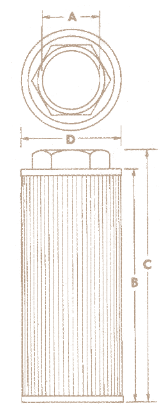
- 40 MICRONS
- 2.38" TUBE TO WELD ON TANK

PART NUMBER: FB-18

SPIN-ON BREATHERS

- 10 MICRONS PAPER (MANY OPTIONS AVAILABLE)

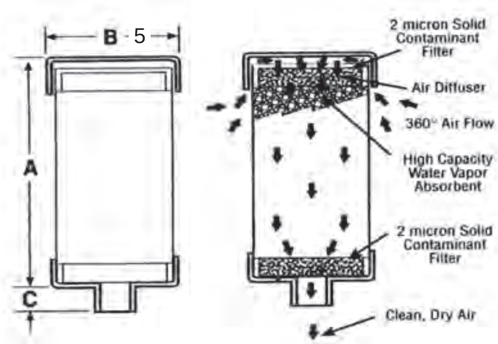
PART NUMBER	NPT THREAD	MAX CFM	SPARE ELEMENT	ADAPTOR ONLY
LGB-8-10	1/2"	100	CP-752-10	LABA-8
LGB-12-16	1"	40	CPAB310	LABA-12-16
LGB-12-10	3/4"	150	CP-752-10	LABA-12
LGB-16-10	1"	200		LABA-16
LGB-20-10	1 1/4"	250	CP-1282-10	LABA-20
LGB-B-310	BAYONET	40	CP-AB-310	B12



DESICCANT BREATHERS

- 2 MICRONS RATING
- ABSORB WATER VAPOR
- SILICA GEL TURNS FROM GOLD TO GREEN WHEN MAXIMUM ABSORPTION IS REACHED

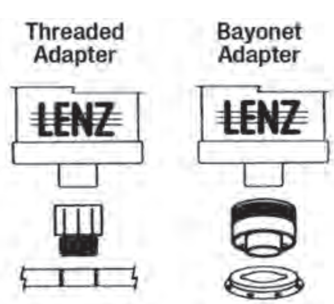
PART NUMBER	MAX GPM	MAX H20 CAPACITY	DIM "A"
DB-03	262	100 ML	3.5"
DB-05		200 ML	5"
DB-08		425 ML	8"
DB-10	750	575 ML	10"



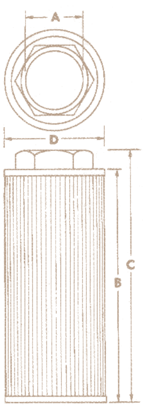
DESICCANT BREATHER ADAPTORS

- ADAPT DESICCANT BREATHER TO TANK

PART NUMBER	DESCRIPTION
DB-BA	BAYONET
DB-R1	1" NPT
DB-R2	3/4" NPT
DB-R3	1/2" NPT



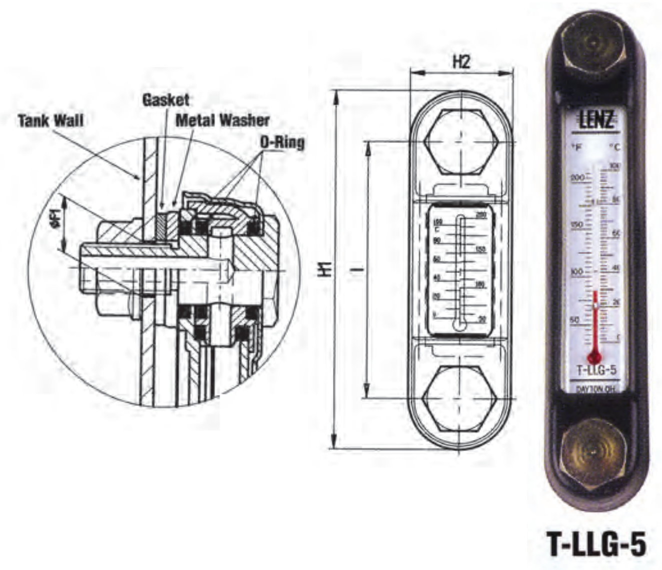
ACCESSORIES



LEVEL GAUGES

- OIL INDICATOR WITH THERMOMETER
- AVAILABLE WITH METRIC BOLT THREAD

PART NUMBER	DIMENSIONS			THREAD
	I	H1	H2	
T-LLG-3	3.0"	4.2"	1.2"	1/2-13 UNC
T-LLG-5	5.0"	6.1"		
T-LLG-10	10.0"	11.1"	1.3"	



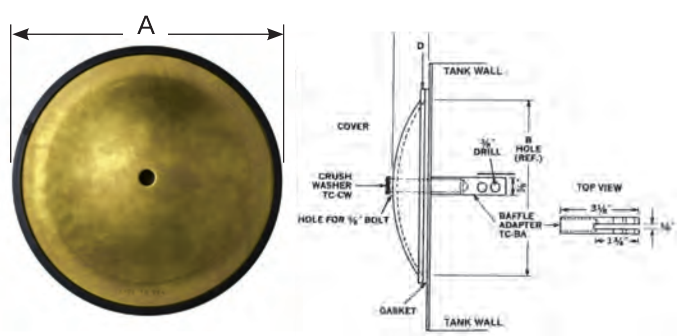
SIGHT WINDOWS

- INDICATE LIQUID LEVEL IN RESERVOIR
- SAE-THREAD AND REFLECTOR BALL IN OPTION

PART NUMBER	THREAD
LSW-6	3/8 NPT
LSW-8	1/2 NPT
LSW-12	3/4 NPT
LSW-16	1 NPT
LSW-20	1 1/4 NPT
LSW-24	1 1/2 NPT
LSW-32	2 NPT

TANK COVERS

- GIVES ACCESS TO INSIDE OF RESERVOIR
- MADE IN STEEL ZINC PLATED
- NO-LEAK GASKET
- DRAIN IN OPTION



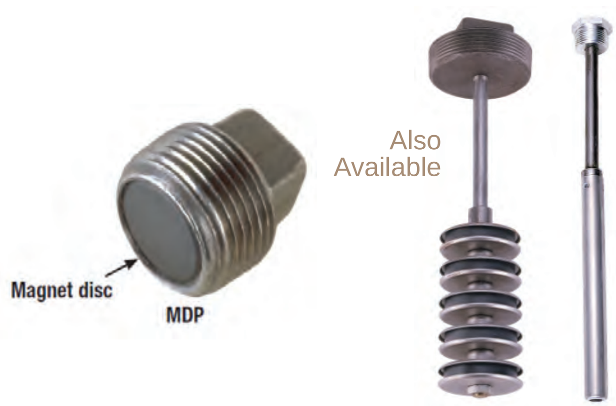
PART NUMBER	DIM "A"
TC-6	6"
TC-12	12"
TC-14	14"
TC-18	18"

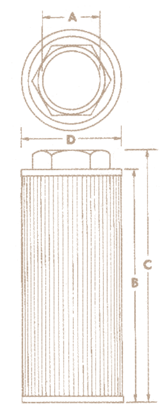
BAFFLE ADAPTOR (TC-BA) MUST BE ORDERED SEPARATELY

MAGNETIC DRAIN PLUGS

- ATTRACTS FERROUS PARTICLES

PART NUMBER	THREAD
MDP-6	3/8 NPT
MDP-8	1/2 NPT
MDP-12	3/4 NPT
MDP-16	1 NPT





PRESSURE GAUGES

- 2 1/2" ROUND FACE
- GLYCERIN FILLED
- 1/4 NPT CONNECTION
- 4" DIAMETER AND OTHER RANGES AVAILABLE
- OTHER RANGE AVAILABLE

STEM MOUNT

PART NUMBER	PSI RANGE
WLGS-600	0-600
WLGS-1000	0-1000
WLGS-2000	0-2000
WLGS-3000	0-3000
WLGS-5000	0-5000

BACKMOUNT

PART NUMBER	PSI RANGE
WLGC-600	0-600
WLGC-1000	0-1000
WLGC-2000	0-2000
WLGC-3000	0-3000
WLGC-5000	0-5000

DIGITAL PRESSURE GAUGES

- DISPLAY MEASURED VALUES AS WELL AS MIN AND MAX VALUES
- RUBBER PROTECTIVE COVERING
- UNITS: BAR, PSI, MPA, KPA
- 0-5800 PSI RANGE
- RESET BUTTON
- BACKGROUND LIGHTNING
- ACCURACY OR 0.5% OF FULL SCALE
- SAE 04 CONNECTION
- WIRELESS AVAILABLE

PART NO: SPG-DIGI-B0400-U

11600 PSI MAX, 24600 psi BURST PRESSURE

FLOW METERS

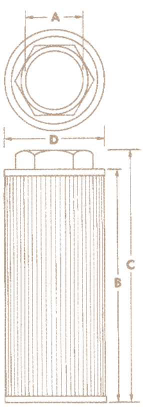
- 3500 PSI MAXIMUM PRESSURE
- ACCURACY ± 2.5% OF FULL SCALE ON MID-THIRD OF FLOW RANGE
- ACCURACY ± 4 % OVER ENTIRE FLOW RANGE

PART NUMBER	FLOW RANGE	PORT SIZE
SSF-L00005-N08	0.5 - 5 GPM	1/2 NPT
SSF-L00030-N09	3 - 30 GPM	3/4 NPT
SSF-L00075-N20	8 - 75 GPM	1 1/4 NPT

LEVEL SWITCHES

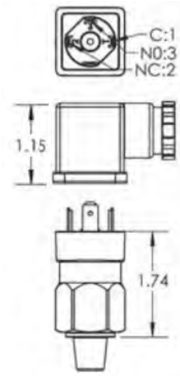
- EASY INSTALLATION, JUST CUT THE CONTROL ROD TO LENGTH
- 1 1/4 NPT THREAD FOR INSTALLATION
- MODEL WITH 2 FLOAT AVAILABLE

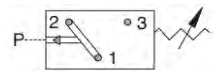
PART NUMBER	ROD LENGTH
RL-G1-T3-S1A-A500	19"
RL-G1-T3-S1A-A1000	39"



PRESSURE SWITCHES

- 9000 PSI MAXIMUM PRESSURE
- FIELD ADJUSTABLE
- +/- 2% REPEATABILITY
- 1/4 NPT CONNECTION
- UP TO 3A / 125 VAC SUPPLY
- N.O. OR N.C. CIRCUIT
- DIN CONNECTOR TYPE





PART NUMBER	PSI RANGE	PSI DIFFERENTIAL
BPA-1-4M-C-HC	5 - 85	3 - 10
BPA-1A-4M-C-HC	65 - 300	8 - 30
BPA-3-4M-C-HC	300 - 2500	50 - 300
BPA-4-4M-C-HC	1000 - 6000	150 - 600
BPA-5-4M-C-HC	500 - 3500	75 - 300

VACUUM SWITCH

- 9000 PSI MAXIMUM PRESSURE
- FIELD ADJUSTABLE
- +/- 2% REPEATABILITY
- 1/4 NPT CONNECTION
- UP TO 3A / 125 VAC SUPPLY
- N.O. OR N.C. CIRCUIT
- DIN CONNECTOR TYPE
- 5-85 IN HG RANGE

PART NUMBER
BPA-1-4M-C-HC

PRESSURE TRANSDUCERS

- 8700 PSI MAXIMUM PRESSURE
- 4 - 20 MA SIGNAL OUTPUT (2 WIRE)
- 1/4 NPT CONNECTION
- +/- 0.5% REPEATABILITY

INFORMATION ABOUT THE TDD MODEL WITH LCD DISPLAY

- DISPLAY IN REALTIME
- CAN BE SET IN DIFFERENT UNITS: Kpa, Mpa, Bar, psi
- PROVIDE ADJUSTMENT TO ZERO AND SPAN CALIBRATION

TDD MODEL
WITH LCD DISPLAY

PART NUMBER	PSI RANGE	VOLTAGE SUPPLY	CONNECTOR
XTC-A-0/3000-4M-HCM-81	0 - 3000	12-30 VDC	MINI DIN 43650C
XTC-A-0/6000-4M-HCM-81	0 - 6000		
TDD-A-0/3000-4M-M	0 - 3000	18-30 VDC	M12 - 3 PINS C/W 79" CABLE
TDD-A-0/6000-4M-M	0 - 6000		

ALSO AVAILABLE

- DIFFERENT PORTS AND ADJUSTMENT RANGE
- OTHER OUTPUT SIGNALS & TYPE OF ELECTRICAL CONNECTORS
- FACTORY SET ADJUSTEMENT
- MANY OTHER MODELS FOR SPECIFIC APPLICATIONS
- DIFFERENTIAL PRESSURE SWITCH
- TEMPERATURE SWITCH & TRANSDUCER







HC Hydro Custom

Lovejoy

ELECTRIC MOTORS

MOTOR FRAME	PUMP FLANGE	FACE TO FACE	PART NO
56-145TC	4F17 1.781" - 4 BOLT	4.25"	B564F42
	SAE AA 2" - 2 BOLT	3.50"	B56AA35
		4.25"	B56AA42
	SAE A 3 1/4" - 2 BOLT	3.50"	B56A35
		4.25"	B56A42
182-256TC	SAE A 3 1/4" - 2 BOLT	5.00"	B182A50
		5.81"	B182A58
		6.81"	B182A68
	SAE B 4" - 2 BOLT	5.81"	B182B58
		6.81"	B182B68
284-286TC	SAE B 4" - 2/4 BOLT	6.87"	B284B68
		7.87"	B284B78

TECHNICAL INFORMATION ON ELECTRICAL MOTORS					
HP	FRAME	SHAFT DIMENSIONS			TORQUE (LBF.IN)
		DIAMETER	KEY	LENGTH	
1	143TC	7/8	3/16	2.25"	35
1.5	145TC				52
2					70
3	182TC	1 1/8	1/4	2.75"	105
5	184TC				175
7.5	213TC	1 3/8	5/16	3.38"	262
10	215TC				350
15	254TC	1 5/8	3/8	4.00"	525
20	256TC				700
25	284TC	1 7/8	1/2	4.63"	875
30	286TC				

BASED ON TEFC MOTORS @ 1800 RPM

GAS ENGINE

HP	PUMP FLANGE	FACE TO FACE	PART NUMBER
5.5 & 6.5	4F17 1.781" - 4 BOLT	4.63"	ADAP55-175
	SAE AA 2" - 2 BOLT	4.63"	ADAP55-200
8 TO 20	4F17 1.781" - 4 BOLT	5.50"	ADAP90200-175B
		6.0"	ADAP90200-L-175
	SAE AA 2" - 2 BOLT	5.50"	ADAP90200-200
	SAE A 3 1/4" - 2 BOLT	5.50"	ADAP90200-C-325
		6.00"	ADAP90200-L-325

TECHNICAL INFORMATION ON GAS ENGINE MOTORS				
HP	SHAFT DIMENSIONS			TORQUE (LBF.IN)
	DIAMETER	KEY	LENGTH	
5.5	3/4	3/16	2.42"	100
6.5				118
8	1	1/4	3.48"	146
9				164
11				200
13				237

BASED ON STD GAS ENGINE @ 3540 RPM

PUMP

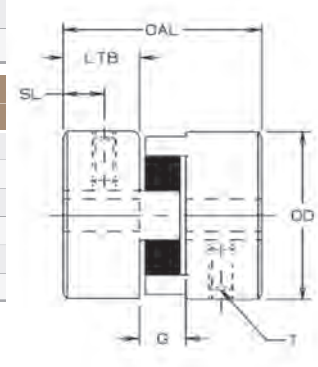
TECHNICAL INFORMATION ON PUMP SHAFTS		
SHAFT TYPE	DIAMETER	LENGTH
SAE-AA - 4 BOLT	1/2	1.50"
SAE-AA - 2 BOLT	1/2	1.06"
SAE-A	5/8	1.25"
SAE-A	3/4	1.25"
SAE-B	7/8	1.61"
SAE-BB	1	1.81"

COUPLINGS

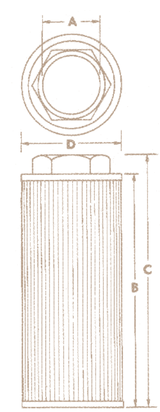
COUPLING SIZE	MAXIMUM BORE	RATED TORQUE (LBF.IN) SPIDER MATERIAL			DIMENSIONS (INCHES)			
		NITRILE	URETHANE	HYTREL	OD	OAL	G	LTB
L075	7/8	90	135	227	1.75	2.13	0.50	0.82
L095	1 1/8	194	291	561	2.11	2.51	0.52	1.00
L100	1 3/8	417	626	1137	2.54	3.48	0.71	1.38
L110	1 5/8	792	1188	2268	3.32	4.22	0.88	1.68
L150	1 7/8	1240	1660	3708	3.75	4.50	1.00	1.75

COUPLING PART NUMBERS				
L075-1/2	L095-1/2	L100-1/2		
L075-5/8	L095-5/8	L100-5/8	L110-5/8	L150-5/8
L075-3/4	L095-3/4	L100-3/4	L110-3/4	L150-3/4
L075-7/8	L095-7/8	L100-7/8	L110-7/8	L150-7/8
	L095-1	L100-1	L110-1	L150-1
	L095-1 1/8	L100-1 1/8	L110-1 1/8	L150-1 1/8
		L100 1 3/8	L110-1 3/8	L150-1 3/8
			L110-1 5/8	L150-1 5/8
				L150-1 7/8

INSERT PART NUMBERS SPIDER MATERIAL		
NITRILE	URETHANE	HYTREL
L075N	L075U	L075H
L095N	L095U	L095H
L100N	L100U	L100H
L110N	L110U	L110H
L150N	L150U	L150H



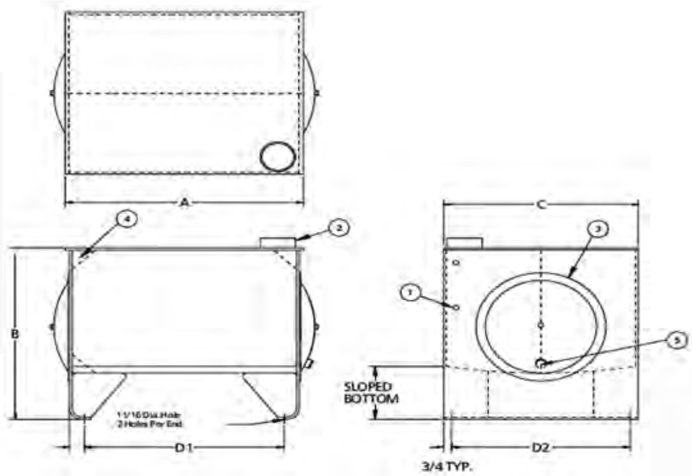
ACCESSORIES

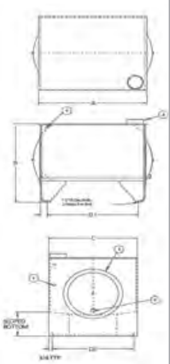


J.I.C. RESERVOIRS

EACH STYLE T1 RESERVOIR INCLUDES:

- OIL LEVEL & TEMP. GAUGE HOLES
- FILLER BREATHER RISER
- 2 STEEL END-COVERS WITH GASKETS
- BAFFLE WITH CUTOUTS FOR CIRCULATION
- 3/4" SAE DRAIN IN END COVER
- EXTERIOR OF RESERVOIR PRIME PAINTED
- INTERIOR OF RESERVOIR COATED WITH RUST PREVENTIVE OIL





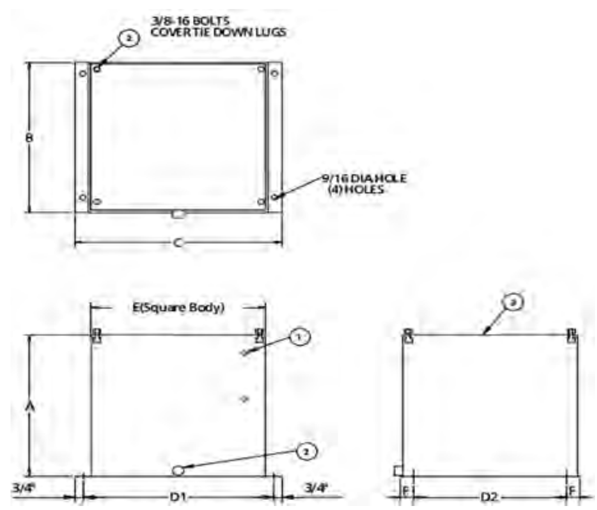
CAPACITY GALLONS	PART NUMBER	TANK DIMENSIONS (INCHES)						MATERIAL THICKNESS		SHIPPING WEIGHT LBS
		A LENGTH	B HEIGHT	C WIDTH	MOUNTING CENTERS D1±1/8	MOUNTING CENTERS D2±1/8	END COVER	END	TOP	
10	T1.10	22"	19 3/8"	18"	18 1/4"	16 1/2"	12"	7 GA	7 GA	105
15	T1.15	26"	19 3/8"	18"	22 1/4"	16 1/2"	12"	7 GA	7 GA	105
20	T1.20	30"	19 3/8"	18"	26 1/4"	16 1/2"	12"	7 GA	7 GA	125
30	T1.30	36"	19 3/8"	24"	32 1/4"	22 1/2"	12"	7 GA	7 GA	178
40	T1.40	36"	21"	24"	32 1/4"	22 1/2"	12"	7 GA	7 GA	190
50	T1.50	36"	23"	24"	32 1/4"	22 1/2"	16"	7 GA	7 GA	200
60	T1.60	48"	20 11/16"	27"	44 1/4"	25 1/2"	16"	7 GA	3/8"	314
80	T1.80	60"	21 1/2"	27"	56 1/4"	25 1/2"	16"	7 GA	3/8"	398
100	T1.100	60"	23 1/2"	27"	56 1/4"	25 1/2"	16"	7 GA	3/8"	418

VERTICAL NON-J.I.C. RESERVOIRS

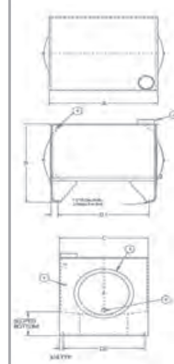
TV RESERVOIR INCLUDES:

- OIL LEVEL & TEMP. GAUGE MOUNTING HOLES
- 4 COVER MOUNTING BOLTS
- CHANNEL GASKET FOR COVER PLATE
- 3/4" SAE DRAIN
- OUTSIDE OF RESERVOIR PRIME PAINTED
- INTERIOR OF RESERVOIR COATED WITH RUST PREVENTIVE OIL

TOP COVER MUST BE ORDERED SEPARATELY.
PLEASE SPECIFIY YOUR NEEDS



CAPACITY GALLONS	PART NUMBER	TANK DIMENSIONS (INCHES)							SHIPPING WEIGHT LBS
		A	B	C	MOUNTING CENTERS D1±1/8	MOUNTING CENTERS D2±1/8	E	F	
5	TV-172	10"	12 1/2"	14 1/2"	13 1/2"	10"	12"	1/2"	55
10	TV-173	15 1/2"	17 1/2"	20"	18 3/4"	15"	17"	1 1/4"	65
20	TV-174	18 1/2"	18"	20 1/2"	19 1/4"	15"	17 1/2"	1 1/2"	80
30	TV-175	26 1/2"	18"	20 1/2"	19 1/4"	15"	17 1/2"	1 1/2"	100



our point of view

2

Download brochure

www.padoan.it/documents/Padoan_
BrochureEN_Download.pdf

Standard and customized tanks
In this brochure Padoan presents the “N” tanks, the standard solutions available for our clients. Our R&D dept. is at your disposal to find the best solution to fit your needs with customized products.
Feel free to contact us at info@padoan.it.

Padoan is a leader Company for oil, diesel oil and combined tanks, hydraulic solutions and integrated systems for industrial vehicles.

The mission is translated into action by Padoan - the Italian HQ, Padoan Swiss, Padoan Deutschland and Padoan Chile.

Our know-how allows us to support OEMs and the distribution network too, providing solutions for the hydraulic application.

Padoan Deutschland has a specific mission focused on wet kit design and selling.

Quality, innovation, research and development are the milestones of the company’s success since 1937.

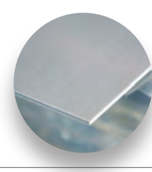
Over the years Padoan has become a worldwide company, providing its professional expertise in more than 50 countries through a wide network.

Our mission and vision can be expressed by our claim:
WETANKYOU SINCE 1937.

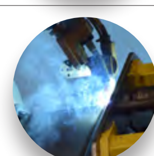
We want to be a partner more than a supplier, providing solutions and “tankerizing” an increasing number of players in many different fields.

At the same time we want to T*h*ANK the clients who trust in us as a partner to develop their projects and strategies.

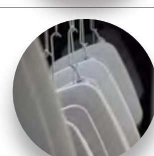
Last but not least, we want to T*h*ANK our team, more than 200 people in the world who, since 1937, provide the quality and value we share with you.



RAW MATERIAL USED IN AUTOMOTIVE FIELD
The material we use guarantees resistance, finishing, longer life expectancy, high quality perception to create premium products.

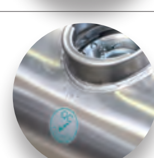


AUTOMATIZED WELDING PROCESS
For several years our welding process has been carried out by automatized robots, through the adoption of the MIG/MAG technology.
This allows a better internal cleaning avoiding the contamination normally caused by manual or standard welding.



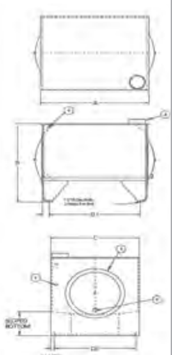
PAINTING PROCESS WITH PRIMER TREATMENT
The painted steel tanks are finished with an epoxy powder varnishing (from 110 to 180 μ) to guarantee the protection from aggressive agents. Primer is also applied for further protection. Each tank is also tested through a salt spray process lasting 500 hours.

RELIABILITY TEST WITH CRACK TESTING MACHINE
All of our tanks components, including brackets and straps, are tested with our cracking vibration machine to verify the life expectancy and quality of our products.



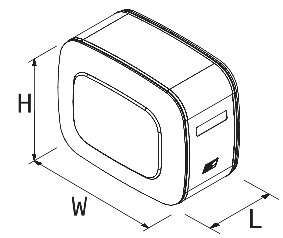
QUALITY TEST 1:1 WITH LEAK DETECTOR
Every tank is tested through an automatized machinery to verify any microscopic loss, using helium technology.
Every tank is marked with a label to indicate it has been tested and approved.

WETANKYOU SINCE 1937



Download tech. details

26/36
This oil tank is equipped with sight temperature gauge
Welded mounting kit: saddlemount installation only (included).
https://www.padoan.it/documents/NA/Padoan_NA_OIL_26-36.pdf



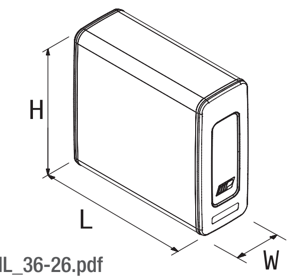
26/36 (sidewalls 10.2" h x 14.2" w)

Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	GAL*	Dimensions (in) L x H x W	Material	Product Code NSOF = Steel
Multi Function (MF)	● embossed 135	● L	◍	◍	● Saddle-mount	1" 1/4 NPT	8 11 13	14.4x10.2x14.2 18.3x10.2x14.2 22,3x10.2x14.2	F F F	- 0030036US00 - 0040046US00 - 0050056US00

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

Download tech. details

36/26
This oil tank is equipped with sight temperature gauge
Welded mounting kit: upright installation only (included).
https://www.padoan.it/documents/NA/Padoan_NA_OIL_36-26.pdf

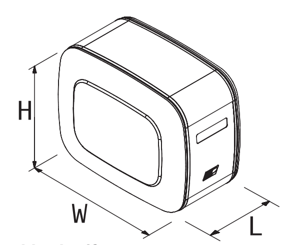


Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	Gal*	Dimension [in] L x H x W	Material	Product Code NSOF = Steel
Multi Function (MF)	● embossed 135	● L	◍	◍	● Upright	1" 1/4 NPT	8 11 13	14.4x14.2x10.2 18.3x14.2x10.2 22.3x14.2x10.2	F F F	- 0030036US01 - 0040046US01 - 0050056US01

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

Download tech. details

44/54
This oil tank is equipped with sight temperature gauge
Mounting kit: available for saddlemount and upright installation.
https://www.padoan.it/documents/NA/Padoan_NA_OIL_44-54.pdf



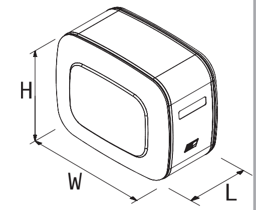
44/54 (sidewalls 17.3" h x 21.3" w)

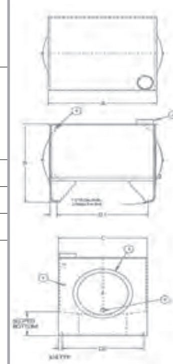
Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	GAL*	Dimensions (in) L x H x W	Material	Product Code NSOF = Steel NSOA = Aluminium
Multi Function (MF)	● embossed 135	● L	● 1" 1/4 NPT	◍	◍ Saddel-mount/ Upright	1" 1/2 NPT	18	13.8x17.6x21.5	A/F	- 0070035US00

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

Download tech. details

50/64
This oil tank is equipped with sight temperature gauge
Mounting kit: available for saddlemount and upright installation.
https://www.padoan.it/documents/NA/Padoan_NA_OIL_50-64.pdf





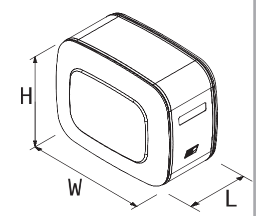
50/64 (sidewalls 20" h x 25,1" w)

Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	GAL*	Dimensions (in) L x H x W	Material	Product Code NSOF = Steel NSOA = Aluminium
Multi Function (MF)	● embossed 135	● L	● 1" 1/4 NPT	◍	◍ Saddelmount/ Upright	1" 1/2 NPT	28	15,7x20x25,1	F	- 0100040US00
							32	17,7x20x25,1	F	- 0120045US00
							40	21,6x20x25,1	A/F	- 0150055US00

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

Download tech. details

63/70
This oil tank is equipped with sight temperature gauge
Mounting kit: available for saddlemount and upright installation.
https://www.padoan.it/documents/NA/Padoan_NA_OIL_63-70.pdf



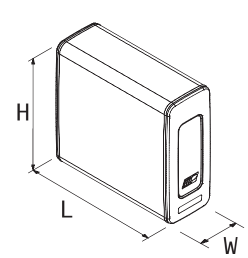
63/70 (sidewalls 25,1" h x 27,9" w)

Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	GAL*	Dimensions (in) L x H x W	Material	Product Code NSOF = Steel NSOA = Aluminium
Multi Function (MF)	● embossed 135	● L	● 1" 1/4 NPT	◍	◍ Saddlemount	1" 1/2 NPT	35	13,7x25,1x27,9	A	- 0135035US00
					◍ Saddlemount/ Upright	2" NPT	51	19,7x25,1x27,9	A/F	- 0200050US00
	● welded 195						66	23,6x25,1x27,9	A	- 0250060US00
							80	28,9x25,1x27,9	A	- 0300073US00
			● 2"				106	39,4x25,1x27,9	A/F	- 0400100US00

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

Download tech. details

63/27
This oil tank is equipped with sight temperature gauge
Mounting kit: upright installation only.
https://www.padoan.it/documents/NA/Padoan_NA_OIL_63-27.pdf



63/27 (sidewalls 25,1" h x 10,7" w)

Products range	Filter Flange	Level Indicator L = Level gauge	Returns	Valve Plate	Mounting kit	Suction Connection	GAL*	Dimensions (in) L x H x W	Material	Product Code NSOF = Steel NSOA = Aluminium
Multi Function (MF)	● embossed 135	● L	◍ 2" NPT	◍	● Upright	2" NPT	53	49,7x25,1x10,7	A/F	- 0200126US00
	● welded 195						66	61,5x25,1x10,7	A	- 0250156US00

* Full tank capacity ● included ○ predisposed (not incl) ◍ not included in the standard tanks

OUR MISSION IS FOR YOU **TO ACHIEVE YOUR GOALS** BY PROVIDING INNOVATIVE & QUALITY PRODUCTS.

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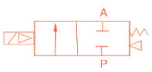
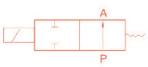
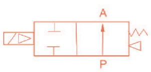






HOW TO ORDER

Series No. | Port Size | Original Status — Orifice | ID Code | Voltage | Valve Body Material | Seal Material — Thread Type

- **Series No.:** SLP: Thread connection; SLPF: Flange connection
- **Port Size:** 06: 1/8 " 25: 1 "; 08: 1/4 " 32: 1–1/4 "; 10: 3/8 " 40: 1–1/2 "; 15: 1/2 " 50: 2 "; 20: 3/4 "
- **Original Status:** Blank: NC; H: NO
- **Orifice:** 010: 1mm; 015: 1.5mm; 025: 2.5mm; 030: 3mm; 040: 4mm; 105: 10.5mm; 130: 13mm; 200: 20mm; 250: 25mm; 320: 32mm; 400: 40mm; 500: 50mm; 650: 65mm; 800: 80mm; 1000: 100mm
- **ID Code:** Blank: Standard type; N: Low power type
- **Voltage:** E1: AC110V E6: AC36V; E2: AC220V E7: AC24V; E3: AC380V E8: DC110V; E4: DC24V E9: DC48V; E5: DC12V E10: DC36V
- **Valve Body Material:** Blank: Brass; S1: SS316
- **Seal Material:** Blank: NBR; E: EPDM; V: VITON
- **Thread Type:** Blank: G; P: PT; T: NPT

ORDER EXAMPLE:
SLP SERIES SOLENOID VALVE, 1/2 PORT SIZE, NC, 13MM ORIFICE, STANDARD TYPE, AC110V, BRASS VALVE BODY, NBR SEAL, G THREAD, ERP CODE IS: SLP15-130E1

EMCJ SERIES

HOW TO ORDER

Series No. — Port Size — Actuator Size | Acting Type | Valve Body Material — Thread Type

- **Series No.:** EMCJ: Stainless Steel Series Angle Valve
- **Port Size:** 10: 3/8 "; 15: 1/2 "; 20: 3/4 "; 25: 1 "; 32: 1–1/4 "; 40: 1–1/2 "; 50: 2 "
- **Actuator Size:** 40: Φ40mm; 50: Φ50mm; 63: Φ63mm; 80: Φ80mm; 100: Φ100mm
- **Acting Type:** Blank: NC Single Acting; H: NO Single Acting; D: Double acting
- **Valve Body Material:** S1: SS316; S2: SS304
- **Thread Type:** Blank: G; P: PT; T: NPT

EMCJ SERIES FULL STAINLESS STEEL SERIES ANGLE VALVE

ORDER EXAMPLE:
EMCJ SERIES FULL STAINLESS STEEL ANGLE SEAT VALVE, 3/8 PORT SIZE, 40MM ACTUATOR SIZE, NC SINGLE ACTING, SS316 VALVE BODY, G THREAD, ERP CODE IS: EMCJ-10-40S1

EMCP SERIES

HOW TO ORDER

Series No . — Port Size — Actuator Size | Acting Type | Valve Body Material — Thread Type

- **Series No.:** EMCP： Polymer Actuator Angle Valve
- **Port Size:** 15：1/2 "; 20：3/4 "; 25：1 "; 32：1-1/4 "; 40：1-1/2 "; 50：2 "
- **Actuator Size:** 50：Φ50mm; 63：Φ63mm; 80：Φ80mm; 100：Φ100mm
- **Acting Type:** Blank :NC Single Acting; H: NO Single Acting; D: Double acting
- **Valve Body Material:** S1 :SS316; S2 :SS304
- **Thread Type:** Blank :G; P ：PT; T ：NPT

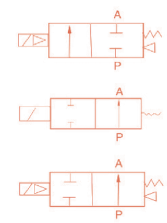
EMCP POLYMER ACTUATOR SERIES ANGLE VALVE

ORDER EXAMPLE:
EMCP, ¾ PORT SIZE, 63 ACTUATOR SIZE, H NO SINGLE ACTING, S2 BODY MATERIAL, T NPT THREAD TYPE

THP SERIES 2/2 SOLENOID VALVE (STEAM VALVES)

THP-15TE2

THP-15TE2S2



HOW TO ORDER

Series No.	Port Size	Original Status	— Orifice	ID Code	Voltage	Valve Body Material	Connection Mode	Seal Material	— Thread Type
THP Series	06: 1/8" 08: 1/4" 10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 35: 1–1/4" 40: 1–1/2" 50: 2" 25F: 1" Flange 35F: 1–1/4" Flange 40F: 1–1/2" Flange 50F: 2" Flange	Blank: NC H: NO	2.5L: 2.5mm 4.5L: 4.5mm 15L: 15mm 35L: 35mm 45L: 45mm 20L: 20mm 25L: 25mm 35L: 35mm (20L, 25L, 35L: Cancel if with same port size)	Blank: Standard type	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V E8: DC110V E9: DC48V E10: DC36V	Blank: Brass S1: SS316 S2: SS304	Blank: DIN Connector F: Flying leads	Blank: NBR T: Teflon V: VITON E: EPDM	Blank: G P: PT T: NPT

ORDER EXAMPLE:
THP SERIES, 2 POSITION, 2 PORT, AC 110V, 1/8"PORT SIZE, ORIFICE: 2.5MM, BRASS, NORMAL CLOSE, NBR SEAL, DIN COIL, ERP CODE IS: THP06E1-2.5L

ESV SERIES 3/2 WAY DIRECT ACTING SOLENOID VALVE (NORMALY CLOSE)

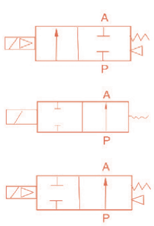
HOW TO ORDER

Series No.	Control Style	— Port Size	— Orifice	ID Code	Voltage	Valve Body Material	Coil Type	Seal Material	— Thread Type
ESV Series ESV–N Series energy–saving solenoid valve (Voltage: 8–30VDC, Power: 2–6W)	1: Normal Close 2: Normal Open 3: Universal Type	06: 1/8 " 08: 1/4 "	1.5L: 1.5mm 2L: 2mm 2.5L: 2.5mm 3L: 3mm 4L: 4mm 5L: 5mm	Blank: Standard type N: Energy saving type	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: Brass S2: SUS304	Blank: DIN Type F: Flying Leads	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT

ORDER EXAMPLE:
ESV SERIES, 2 POSITION, 3 PORT, NORMAL CLOSE, AC110V, 1/8" PORT SIZE, ORIFICE:1.5MM, BRASS VALVE BODY, NBR SEAL, THE ERP CODE IS: ESV1-06-1.5LE1

E•MC® NORTH AMERICA

PNEUMATIC



NBC SERIES NORTH AMERICAN STANDARD CYLINDER

HOW TO ORDER

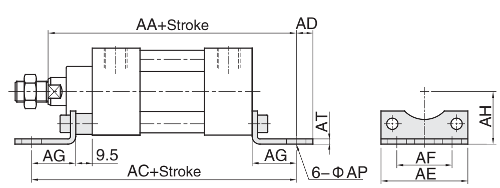
Series No. | Cushion Type | Type No. | Bore X | Stroke – | Magnet No. – | Seal Material – | Mounting Type

- Series No.: NB: Profile barrel (North American Standard)
- Cushion Type: C: Air cushion
- Type No.: Blank: Basic type; D: Double shaft type; J: Double shaft and adjustable type
- Bore: 40(1-1/2"), 50(2"), 63(2-1/2"), 80(3-1/4"), 100(4")
- Stroke: *Stroke length must be indicated as 4 digits. First and second digit:Stroke/Inch. Third and fourth digit:Stroke/Hundredth of an inch. Example) 0525=5.25(5–1/4) inch stroke. Details in stroke chart
- Magnet No.: Blank: No magnet; S: With magnet
- Seal Material: Blank: Standard material (NBR seal); V: VITON seal
- Mounting Type: Blank: No; LB; CA; CB; FA; FB; YJ

ORDER EXAMPLE:
NBC SERIES, DOUBLE SHAFT AIR CYLINDER, BORE 40, STROKE 2 INCH, WITH MAGNET, NBR SEAL, CA MOUNTING ACCESSORY.
EPR CODE IS: NBCD40×0200-S-CA
NOTE: IF USING A CYLINDER WITH DIFFERENT MOUNTING ACCESSORIES, PLEASE USE THIS SEQUENTIAL CODING: LB/CA/CB/FA/FB/YJ

DIMENSION OF MOUNTING ACCESSORIES

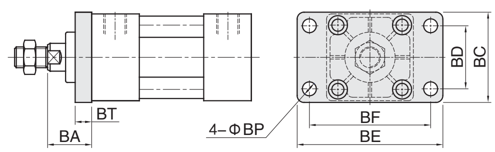
NBC□–MSI



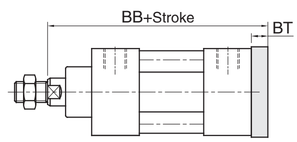
(inch)

Bore	AA	AC	AD	AE	AF	AG	AH	AP	AT
40(1–1/2")	5.625	6.00	0.38	1.97	1.25	1.00	1.188	0.44	0.12
50(2")	5.625	6.00	0.38	2.44	1.75	1.00	1.438	0.44	0.12
63(2–1/2")	5.75	6.125	0.38	2.95	2.25	1.00	1.625	0.44	0.12
80(3–1/4")	6.875	7.375	0.50	3.74	2.75	1.25	1.938	0.56	0.16
100(4")	6.875	7.375	0.50	4.41	3.50	1.25	2.25	0.56	0.16

NBC□–MF1



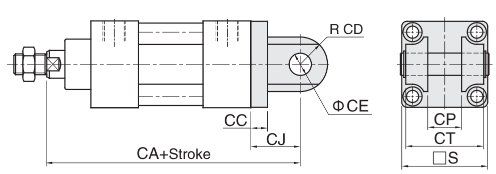
NBC□–MF2



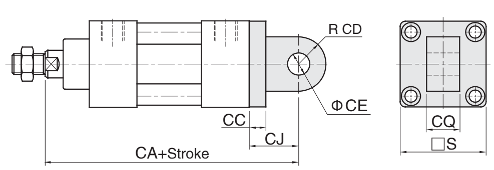
(inch)

Bore	BA	BB	BC	BD	BE	BF	BP	BT
40(1–1/2")	1.00	5.00	2.05	1.43	3.31	2.75	0.315	0.375
50(2")	1.00	5.00	2.56	1.84	4.13	3.375	0.375	0.375
63(2–1/2")	1.00	5.125	2.87	2.19	4.57	3.875	0.375	0.375
80(3–1/4")	1.375	6.25	3.62	2.76	5.63	4.685	0.435	0.63
100(4")	1.375	6.25	4.50	3.31	6.34	5.435	0.435	0.63

NBC□–MP2



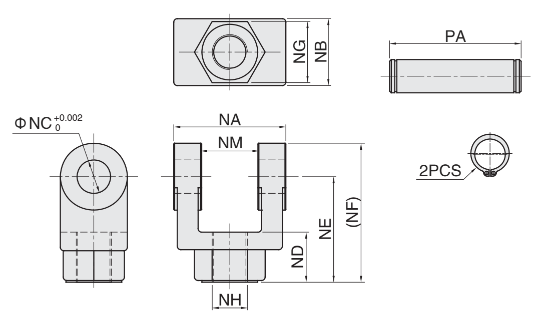
NBC□–MP4



(inch)

Bore	CA	CC	CD	CE	CJ	CP	CQ	CT	S
40(1–1/2")	5.75	0.38	0.62	0.50	1.125	0.765	0.75	1.765	1.95
50(2")	5.75	0.38	0.62	0.50	1.125	0.765	0.75	1.765	2.42
63(2–1/2")	5.875	0.38	0.62	0.50	1.125	0.765	0.75	1.765	2.93
80(3–1/4")	7.50	0.63	0.87	0.75	1.875	1.265	1.25	2.515	3.66
100(4")	7.50	0.63	0.87	0.75	1.875	1.265	1.25	2.515	4.37

NBC□–YJ



(inch)

Bore	NA	NB	NC	ND	NE	NF	NG	NH	NM	PA
40(1–1/2")	1.764	1.00	0.504	0.75	1.5	2.0	1.0	UNF-7/16–20–2A	0.764	2.17
50(2")	1.764	1.00	0.504	0.75	1.5	2.0	1.0	UNF-7/16–20–2A	0.764	2.17
63(2–1/2")	1.764	1.00	0.504	0.75	1.5	2.0	1.0	UNF-7/16–20–2A	0.764	2.17
80(3–1/4")	2.516	1.50	0.752	1.13	2.37	3.13	1.37	UNF 3/4–16–2A	1.264	2.95
100(4")	2.516	1.50	0.752	1.13	2.37	3.13	1.37	UNF 3/4–16–2A	1.264	2.95

FVBC SERIES ISO6431 / ISO15552

HOW TO ORDER

Series No. | Cushion Type | Type No. | Bore X Stroke — Adjustable Stroke — Magnet No. — Seal Material — Mounting Type — Thread Type

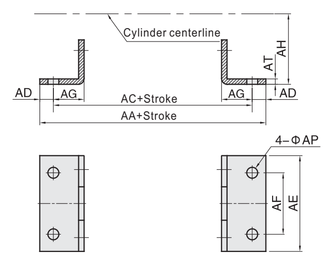
- Series No.: FVB: Square barrel; FXB: Profile barrel
- Cushion Type: C：Air cushion
- Type No.: Blank: Basic type; D: Double shaft type; J: Double shaft and adjustable stroke type
- Bore: 32, 40, 50, 63, 80, 100
- Stroke: 25, 50, 75, …
- Adjustable Stroke: 10, 20, 30, 40, 50, 75, 100
- Magnet No.: Blank: No magnet; S: With magnet
- Seal Material: Blank：TPU seal
- Mounting Type: Blank：No; CA, CB, CR, LB, FA, FB, IJ, YJ, YCJ, BJ, FD
- Thread Type: Blank：G; P：PT; T：NPT

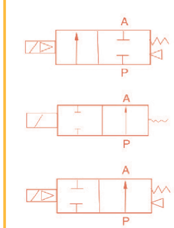
ORDER EXAMPLE:
FVBC SERIES, DOUBLE SHAFT AIR CYLINDER, BORE 40MM, STROKE 50MM, WITH MAGNET, TPU SEAL MATERIAL, CA MOUNTING ACCESSORY, NPT THREAD.
ERP CODE IS: FVBCD 40X50-S-CA-T
NOTE: IF USING A CYLINDER WITH DIFFERENT MOUNTING ACCESSORIES, PLEASE USE THIS SEQUENTIAL CODING: CA/CB/CR/LB/FA/FB/IJ/YJ/BJ/FD

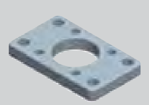
DIMENSION OF MOUNTING ACCESSORIES

Dimension of LB type

Model\Sign	AA	AC	AD	AE	AF	AG	AH	AP	AT
FJ–VBC32LB	158	142	8	47	32	24	32	7	4
FJ–VBC40LB	179	161	9	53	36	28	36	9	4
FJ–VBC50LB	190	170	10	65	45	32	45	9	5
FJ–VBC63LB	209	185	12	75	50	32	50	9	5
FJ–VBC80LB	248	210	19	95	63	41	63	12.5	6
FJ–VBC100LB	258	220	19	115	75	41	71	14.5	6

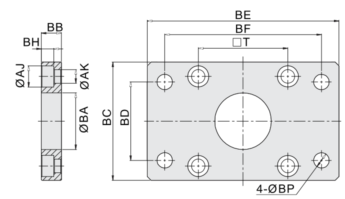


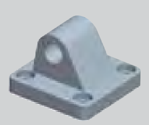




Dimension of FA/FB type

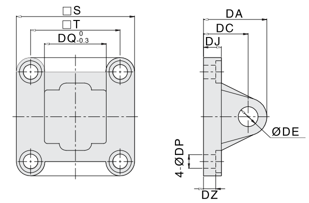
Model\Sign	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
FJ–VBC32FA	11	7	30.5	10	47	32	80	64	6	7	32.5
FJ–VBC40FA	11	7	35.5	10	53	36	90	72	6	9	38
FJ–VBC50FA	14	9	40.5	12	65	45	110	90	8	9	46.5
FJ–VBC63FA	14	9	45.5	12	75	50	125	100	8	9	56.5
FJ–VBC80FA	17	11	45.5	16	95	63	154	126	10	12.5	72
FJ–VBC100FA	17	11	55.5	16	115	75	186	150	10	14.5	89





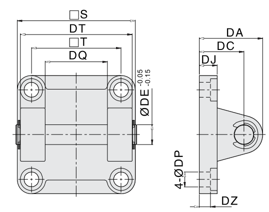
Dimension of CA type

Model\Sign	DA	DC	DE	DJ	DP	DQ	DZ	S	T
FJ–VBC32CA	31	22	10	9.5	7	25.8	5.5	47	32.5
FJ–VBC40CA	37	25	12	9.5	7	27.8	5.5	53	38
FJ–VBC50CA	39	27	12	10.5	9	31.8	6.5	65	46.5
FJ–VBC63CA	47	32	16	10.5	9	39.7	6.5	75	56.5
FJ–VBC80CA	51	36	16	14.5	11	49.7	10	95	72
FJ–VBC100CA	61	41	20	14.5	11	59.7	10	115	89



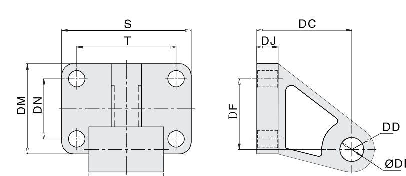
Dimension of CB type

Model\Sign	DA	DC	DE	DJ	DP	DQ	DT	DZ	S	T
FJ–VBC32CB	31	22	10	9.5	7	$26^{+0.52}_{0}$	45	5.5	47	32.5
FJ–VBC40CB	37	25	12	9.5	7	$28^{+0.52}_{0}$	52	5.5	53	38
FJ–VBC50CB	39	27	12	10.5	9	$32^{+0.62}_{0}$	60	6.5	65	46.5
FJ–VBC63CB	47	32	16	10.5	9	$40^{+0.62}_{0}$	70	6.5	75	56.5
FJ–VBC80CB	51	36	16	14.5	11	$50^{+0.62}_{0}$	90	10	95	72
FJ–VBC100CB	61	41	20	14.5	11	$60^{+0.74}_{0}$	110	10	115	89



Dimensions of CR type

Model\Sign	DC	DD	DE	DF	DJ	DQ	DM	DN	S	T
FJ–VBC32CR	32	10	10	21	8	25.8	31	18	51	38
FJ–VBC40CR	36	11	12	24	10	27.8	35	22	54	41
FJ–VBC50CR	45	13	12	33	12	31.8	45	30	65	50
FJ–VBC63CR	50	15	16	37	12	39.7	50	35	67	52
FJ–VBC80CR	63	15	16	47	14	49.7	60	40	86	66
FJ–VBC100CR	71	19	20	55	15	59.7	70	50	96	76



E•MC® NORTH AMERICA

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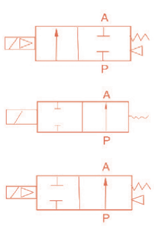


NCM SERIES NORTH AMERICAN STANDARD THROW-AWAY CYLINDER

NCM25×0500-S

HOW TO ORDER

Series No – Cushion Type – Type No – Bore X Stroke — Magnet No — Tail Type — Mounting Type

- **Series No**: NCM *(North American Standard)
- **Cushion Type**: Blank: Rubber cushion
- **Type No**: Blank: Basic type; D: Double shaft type
- **Bore**: 16(9/16"), 20(3/4"), 25(1–1/16"), 32(1–1/4"), 40(1–1/2")
- **Stroke**: *Stroke length must be indicated as 4 digits. First and second digit:Stroke/Inch. Third and fourth digit:Stroke/Hundredth of an inch. Example) 0525=5.25(5–1/4) inch stroke. Details in stroke chart
- **Magnet No**: S: With magnet
- **Tail Type**: Blank: Swiveling tail; R: Axial air–in
- **Mounting Type**: Blank: No; LB; SDB; YJ

ORDER EXAMPLE:
NCM SERIES, DOUBLE SHAFT TYPE, BORE 32 MM, STROKE 2 INCH, WITH MAGNET, NO MOUNTING TYPE, SWIVELING TAIL.
ERP CODE IS: NCMD32×0200-S
NOTE: IF USING A CYLINDER WITH DIFFERENT MOUNTING ACCESSORIES, PLEASE USE THIS SEQUENTIAL CODING: LB/SDB/YJ

EG SERIES REPAIRABLE CYLINDER

HOW TO ORDER

Series No – Type No – Bore X Stroke — Magnet No — Piston Rod Thread Type — Mounting Type — Thread Type

- **Series No**: EG
- **Type No**: Blank: Basic type; D: Double shaft type; C: Air cushion type
- **Bore**: 20, 25, 32, 40, 50, 63
- **Stroke**: 20, 50, 75, 100, …
- **Magnet No**: Blank: No magnet; S: With magnet
- **Piston Rod Thread Type**: Blank: Female thread; M: Male thread; N: No thread
- **Mounting Type**: Blank: No; LB; FA; FB; CB; SDB
- **Thread Type**: Blank: G; P: PT

ORDER EXAMPLE:
EG SERIES BASIC TYPE CYLINDER, 25MM BORE, 50MM STROKE, WITH MAGNET, MALE THREAD ON PISTON ROD, CB MOUNTING ACCESSORY,G THREAD.
ERP CODE IS: EG25X50-S-M-CB

* Also available in NEG series (North american standard)

SQ SERIES COMPACT CYLINDER

HOW TO ORDER

Series No – Mounting Type – Type No – Bore X Stroke — Adjustable Stroke — Magnet No — Piston Rod Thread Type — Mounting Type – Thread Type

- **Series No**: SQ
- **Mounting Type**: Blank: Through hole; A: Femal thread at both ends
- **Type No**: Blank: Basic type; D: Double shaft type; J: Double shaft and adjustable stroke type; SA: Single acting spring extend; SB: Single acting spring return
- **Bore**: 12, 16, 20, 25, …, 100
- **Stroke**: 25, 50, 75, …
- **Adjustable Stroke**: 10, 20, 30, 40, 50, 75, 100
- **Magnet No**: Blank: No magnet; S: With magnet
- **Piston Rod Thread Type**: Blank: Female thread; M: Male thread; N: No thread
- **Mounting Type**: Blank: No; LB; CB; FA; FB
- **Thread Type**: Blank: G; P: PT

ORDER EXAMPLE:
SQ SERIES SINGLE ACTING SPRING EXTEND CYLINDER, THROUGH HOLE MOUNTING TYPE, 40MM BORE, 30MM STROKE, WITH MAGNET, FEMAL THREAD ON PISTON ROD, G THREAD.
ERP CODE IS: SQSA40X30-S

* Also available NSQ series (North american standard)

EXS SERIES DUAL ROD CYLINDER

HOW TO ORDER

Series No | Type No | Bore X Stroke — Magnet No — Thread Type

- Series No: EXS
- Type No: M: Slide bearing
- Bore: 6, 10, 12, 16, 20, …
- Stroke: 25, 50, 75, …
- Magnet No: S: With magnet
- Thread Type: Blank: G; P: PT; T: NPT

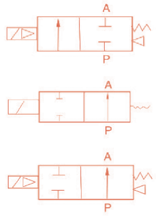
ORDER EXAMPLE:
EXS SERIES, SLIDE BEARING TYPE, BORE 6MM, STROKE 30MM ERP CODE IS: EXSM6X30-S
NOTE: THE CYLINDER'S BORE AND STROKE, MOUNTING ACCESSORIES DETAILS ACCORDING TO DRAWINGS.

SG SERIES COMPACT GUIDE CYLINDER

HOW TO ORDER

Series No | Type No. | Bore X Stroke — Magnet No. — Thread Type

- Series No: SG
- Type No.: L: Ball bushing bearing; M: Slide bearing
- Bore: 12, 16, 20, …
- Stroke: 25, 50, 75, …
- Magnet No.: S: With magnet
- Thread Type: Blank: G; P: PT; T: NPT



ORDER EXAMPLE:
SG SERIES, LINEAR BEARING, BORE 16MM, STROKE 30MM, EPR CODE IS: SGL16X30-S

EMQ SERIES ROTARY CYLINDER

HOW TO ORDER

Series No | Bore — Magnet No — Cushion Type — Thread Type

- Series No: EMQ
- Bore: 10, 20, 30, 50
- Magnet No: S: With magnet (Magnet is standard)
- Cushion Type: A: With adjustment bolt; R: With shock absorber
- Thread Type: Blank: G; P: PT; T: NPT

ORDER EXAMPLE:
EMQ SERIES ROTARY CYLINDER, BORE 30, WITH ADJUSTMENT BOLT, G THREAD, ERP CODE IS: EMQ30-S-A
NOTE: SPECIFIC BORE AND STROKE OF THE CYLINDER SUBJECT TO THE DRAWING.

SHZ SERIES AIR GRIPPER

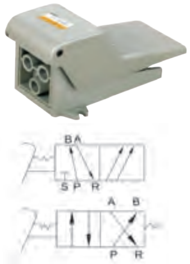
HOW TO ORDER

Series — Type No. — Bore — Magnet No.

- Series: SHZ: Parrallel air gripper
- Type No.: Blank: Basic type; SA: Single acting (N.O.); SB: Single acting (N.C.)
- Bore: 10, 16, 20, 25
- Magnet No.: S: With magnet (Magnet is standard)

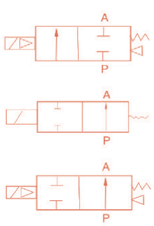
ORDER EXAMPLE:
PARRALLEL AIR GRIPPER,BORE 20,WITH MAGNET,ERP CODE IS:SHZ20-S

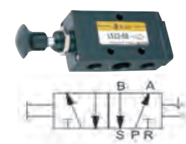
MECHANICAL VALVE



FOOT PEDALE 5/2	PORT SIZE (NPT)	DESCRIPTION
F522-08-T	1/4"	FOOT PEDAL
F522-08L-T		FOOT PEDAL 5/2 WITH LOCK 1/2
F522C-08-T		FOOT PEDAL WITH GUARD

LEVER VALVE	WAY/POSITION	DESCRIPTION	PORT SIZE (NPT)
H322-08-T	3W/2P	DETENT	1/4"
H323-10-T			3/8"
H521-06-T	5W/2P		1/8"
H521-06S-T		SPRING RETURN	
H533-10S-T	5W/3P	SPRING RETURN	3/8"
H533C-10-T		CLOSE CENTER	





HAND PULL VALVE 5/2	PORT SIZE (NPT)	DESCRIPTION
L523-10-T	3/8"	HAND PULL VALVE 5/2, 3/8, DETENT
L524-15-T	1/2"	HAND PULL VALVE 5/2, 1/2, DETENT

ROTARY VALVE 4/3	PORT SIZE (NPT)	DESCRIPTION
R432-08-T	1/4"	ROTARY VALVE 1/4
R432-10-T	3/8"	ROTARY VALVE 3/8

M SERIES VALVE	WAY/POSITION	DESCRIPTION	PORT SIZE (NPT)
M32-08S7-T	3W/2P	MECANICAL VALVE BLANK	1/4"
M52-08S1B-T	5W/2P	MECH.VALVE TWIST SELECTOR	
MJ32-08S4G-T	3W/2P	MECH.VALVE PUSH BUTTON	
MJ32-08S5R-T		MECH.VALVE PUSH BUTTON FLUSH	
MS32-06S3R-T		MECH.VALVE PUSH BUTTON "E" STOP	1/8"
MS32-06S4G-T		MECANICAL VALVE PUSH BUTTON	
MS32-06S5R-T		MECH.VALVE PUSH BUTTON FLUSH	

YHS-08FF-T	2W/2P	SLIDE VALVE	1/4"
YHS-10FF-T			3/8"
YHS-15FF-T			1/2"
YHS-20FF-T			3/4"
YHS-25FF-T			1"
RE-06-T		FLOW CONTROL VALVE	1/8"
RE-08-T			1/4"
RE-10-T			3/8"
RE-15-T			1/2"
KKP-06-T	3W/2P	QUICK EXHAUST VALVE	1/8"
KKP-08-T			1/4"
KKP-10-T			3/8"
KKP-15-T			1/2"

E•MC® NORTH AMERICA

PNEUMATIC

RV SERIES STANDARD 3/2 WAY

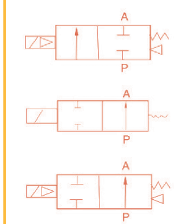
HOW TO ORDER

Standard Solenoid Valve

Series No. | Ports | Positions | Valve Body ID Code | Controls | Original Status — Port Size | Reset Typt | ID Code | Voltage | Connection Mode | Cover Color — Valve Color — Thread Type

- Series No.: RV
- Ports: 3: 3 ports
- Positions: 2: 2 positions
- Valve Body ID Code: 1: 1Series; 2: 2Series; 3: 3Series; 4: 4Series
- Controls: 1: Single control; 2: Double control
- Original Status: Blank: Normal close; H: Normal open
- Port Size: M5: M5; 06: 1/8"; 08: 1/4"; 10: 3/8"; 15: 1/2"
- Reset Typt: Blank: Spring (Only 4 series single control); Q:Air (1,2,3 series single control)
- ID Code: Blank: Standard type; A: Amisco coil
- Voltage: E1: AC110V; E2: AC220V; E3: AC380V; E4: DC24V; E5: DC12V; E6: AC36V; E7: AC24V; E8: DC110V; E9: DC48V; E10: DC36V
- Connection Mode: Blank: DIN connector; F:Flying leads; K: Waterproof DIN connector (Only for 2,3,4 series)
- Cover Color: Blank: Brown translucent; J: Colorless and translucent; B: Black (Only Waterproof DIN connector)
- Valve Color: Blank: Internal pilot; WB: External pilot
- Thread Type: Blank: G; P: PT; T: NPT

ORDER EXAMPLE:
RV SERIES SOLENOID VALVE, 2 SERIES VALVE BODY SIZE, 3/2 WAYS, SINGLE CONTROL, 1/8" PORT SIZE, AIR RESET FORM, STANDARD COIL, AC220V, DIN CONNECTOR, G THREAD, ERP CODE IS :RV3221-06QE2



RV SERIES STANDARD 5/2 5/3

HOW TO ORDER

Standard Solenoid Valve

Series No. | Ports | Positions | Valve Body Size | Controls | Original Status — Port Size | Reset Form | ID Code | Voltage | Connection Mode | Cover Color | Acting Type — Thread Type

- Series No.: RV
- Ports: 5:5 ports
- Positions: 2:2 positions; 3:3 positions
- Valve Body Size: 1: 1Series; 2: 2Series; 3: 3Series; 4: 4Series
- Controls: 1: Single control; 2:Double control
- Original Status: C: Center close; P: Center pressure; E: Center exhaust (Only for 5/3 way)
- Port Size: M5: M5; 06: 1/8"; 08: 1/4"; 10: 3/8"; 15: 1/2"
- Reset Form: Blank: Spring; Q: Air (Only single control)
- ID Code: Blank: Standard type; A: Amisco coil
- Voltage: E1: AC110V; E2: AC220V; E3: AC380V; E4: DC24V; E5: DC12V; E6: AC36V; E7: AC24V; E8: DC110V; E9: DC48V; E10: DC36V
- Connection Mode: Blank: DIN connector; F: Flying leads; K: Waterproof DIN connector (Only 2、3、4 series is opitional)
- Cover Color: Blank: Brown translucent; J: Colorless and translucent
- Acting Type: Blank: Internal pilot; WB: External pilot
- Thread Type: Blank: G; P: PT; T: NPT

ORDER EXAMPLE:
RV SERIES SOLENOID VALVE, 2 SERIES VALVE BODY SIZE, 5/2 WAY, SINGLE CONTROL, 1/4" PORT SIZE, STANDARD COIL,DC24V, DIN CONNECTOR, G THREAD, ERP CODE IS: RV5221-08E4

SR INTEGRATED MANIFOLD (PLUG-IN TYPE)

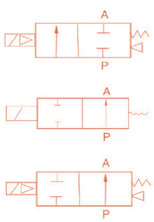
HOW TO ORDER

SR Valve Group:

Series No. | Valve Body Size | ID code | Valve Numbers | Controls — Port Size | Voltage | Coil Type — Thread Type | Mounting Type

- Series No.: S: Common type; SN: Low power type
- Valve Body Size: 1: 1 series; 2: 2 series
- ID code: R: RV series valve
- Valve Numbers: 3:3valves; 4:4valves; 5:5valves; 6:6valves; 7:7valves; 8:8valves; 9:9valves; 10:10valves; 11:11valves; 12:12valves; 13:13valves; 14:14valves
- Controls: S: Single coil
- Port Size: M5: M5; 06: 1/8"; 08: 1/4"
- Voltage: E4:DC24V; E5:DC12V (Only DC24V for low power type)
- Coil Type: Blank: Plug–in type
- Thread Type: Blank: G; P: PT; T: NPT
- Mounting Type: Blank: No accessory; D: Din guide rail clip with 1 meter din guide rail; DO: Din guide rail clip without din guide rail (Din guide rail packed separatly)

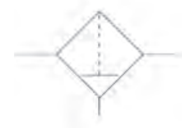
ORDER EXAMPLE:
SR SERIES INTEGRATED MANIFOLD, 1 SERIES VALVE BODY, RV SERIES VALVE, 6 VALVES, SINGLE CONTROL, 1/8 PORT SIZE, VOLTAGE DC24V, PLUG-IN TYPE COIL, G THREAD, NO ACCESSORY, ERP CODE IS: S1R6S-06E4



EI SERIES AIR SOURCE TREATMENT UNIT (NPT)

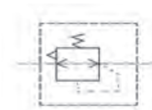
MAX WORKING PRESSURE: 145BOWL MATERIAL:
POLYCARBONATEMANUAL DRAIN

FILTER (5μm)	PORT SIZE NPT	RATED FLOW (L/MIN)
EIF2000-015M-T	1/8"	1000
EIF2000-025M-T	1/4"	1100
EIF3000-035M-T	3/8"	2148
EIF4000-045M-T	1/2"	5430
EIF5000-065M-T	3/4"	8200
EIF5000-105M-T	1"	8200

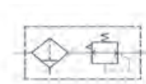



LUBRICATOR	PORT SIZE NPT	RATED FLOW (L/MIN)
EIL2000-01-T	1/8"	1300
EIL2000-02-T	1/4"	1345
EIL3000-03-T	3/8"	2375
EIL4000-04-T	1/2"	5532
EIL5000-06-T	3/4"	7700
EIL5000-10-T	1"	8000


REGULATOR	PORT SIZE NPT	RATED FLOW (L/MIN)
EIR2000-013-T	1/8"	1178
EIR2000-023-T	1/4"	1200
EIR3000-033-T	3/8"	2212
EIR4000-043-T	1/2"	5312
EIR4000-04	1/2"	5312
EIR5000-063-T	3/4"	6400
EIR5000-103-T	1"	6600

FILTER (5μm) + REGULATOR	PORT SIZE NPT	RATED FLOW (L/MIN)
EIW2000-0135M-T	1/8"	1078
EIW2000-0235M-T	1/4"	1165
EIW3000-0335M-T	3/8"	2177
EIW4000-0435M-T	1/2"	5211
EIW5000-0635M-T	3/4"	6200
EIW5000-1035M-T	1"	6400

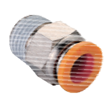
FRL	PORT SIZE NPT	RATED FLOW (L/MIN)
EIC3010-0335M-T	3/8"	1956
EIC2000-0135M-T	1/8"	1000
EIC2000-0235M-T	1/4"	1100
EIC3000-0335M-T	3/8"	2105
EIC4000-0435M-T	1/2"	5200
EIC5000-0635M-T	3/4"	6200
EIC5000-1035M-T	1"	6500


ONE TOUCH FITTING

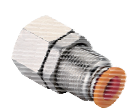
HOW TO ORDER

Series No.	O.D. of Tube		Thread size	Thread type
ZPC	04: 4 mm	5/32: 5/32"	M5: M5	Blank: PT
ZPCF	06: 6 mm	3/16: 3/16"	M6: M6	G: G
ZPOC	08: 8 mm	1/4: 1/4"	01: 1/8"	T: NPT
...	10: 10 mm	5/16: 5/16"	02: 1/4"	
	12: 12 mm	3/8: 3/8"	03: 3/8"	
	14: 14 mm	1/2: 1/2"	04: 1/2"	
	16: 16 mm			

ORDER EXAMPLE:
ZPCF Serie, ¼'' O.D. of tube, 1/8'' Thread size, G Thread type.

ZPC

ZPCF

ZPOC

ZPMF

ZPL

ZPLF


ZPLL

ZPB

ZPBF

ZPD

ZPWT

ZPH


ZPHF

ZPGJ

ZPU

ZPV

ZPE

ZPY


ZPM

ZPZA

ZPP

ZPIJ

ZPLJ

ZPYJ


ZPG

ZPW

ZPEW

ZPKG

ZPIG

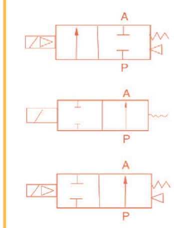
ZPWJ


ZPKD

ZPK

ZPEG

ZPKB

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TUBE

HOW TO ORDER

Series No.	O.D.		X	I.D.	Length	Color code
PU: PU Tube	040: 4 mm 060: 6 mm 080: 8 mm 100: 10 mm 120: 12 mm 160: 16 mm	5/32 5/32" 3/16 3/16" 1/4: 1/4" 5/16: 5/16" 3/8: 3/8" 1/2: 1/2"		025: 2.5 mm 040: 4 mm 050: 5 mm 060: 6 mm 065: 6.5mm 080: 8 mm 100: 10 mm 120: 12 mm	20M: 20M/Roll 30M: 30M/Roll 100M: 100M/Roll 200M: 200M/Roll (Only ø4x ø2.5 and ø6x ø4 are 200m/Roll)	BU: Blue B: Black C: Transparent O: Orange R: Red W: White G: Green Y: Yellow

STOCKED COLOR TUBE

*Stocked colors tube:

Metric	BU	B	Clear	O	R	W	G	Y
4mm	√	√			√	√	√	√
6mm	√	√						
8mm	√	√						
10mm	√	√						
12mm	√	√						
16mm	√	√						

Imp.	BU	B	Clear	O	R	W	G	Y
5/32"	√	√			√	√	√	√
3/16"	√							
1/4"	√	√			√	√	√	√
5/16"	√	√						
3/8"	√	√						
1/2"	√	√						

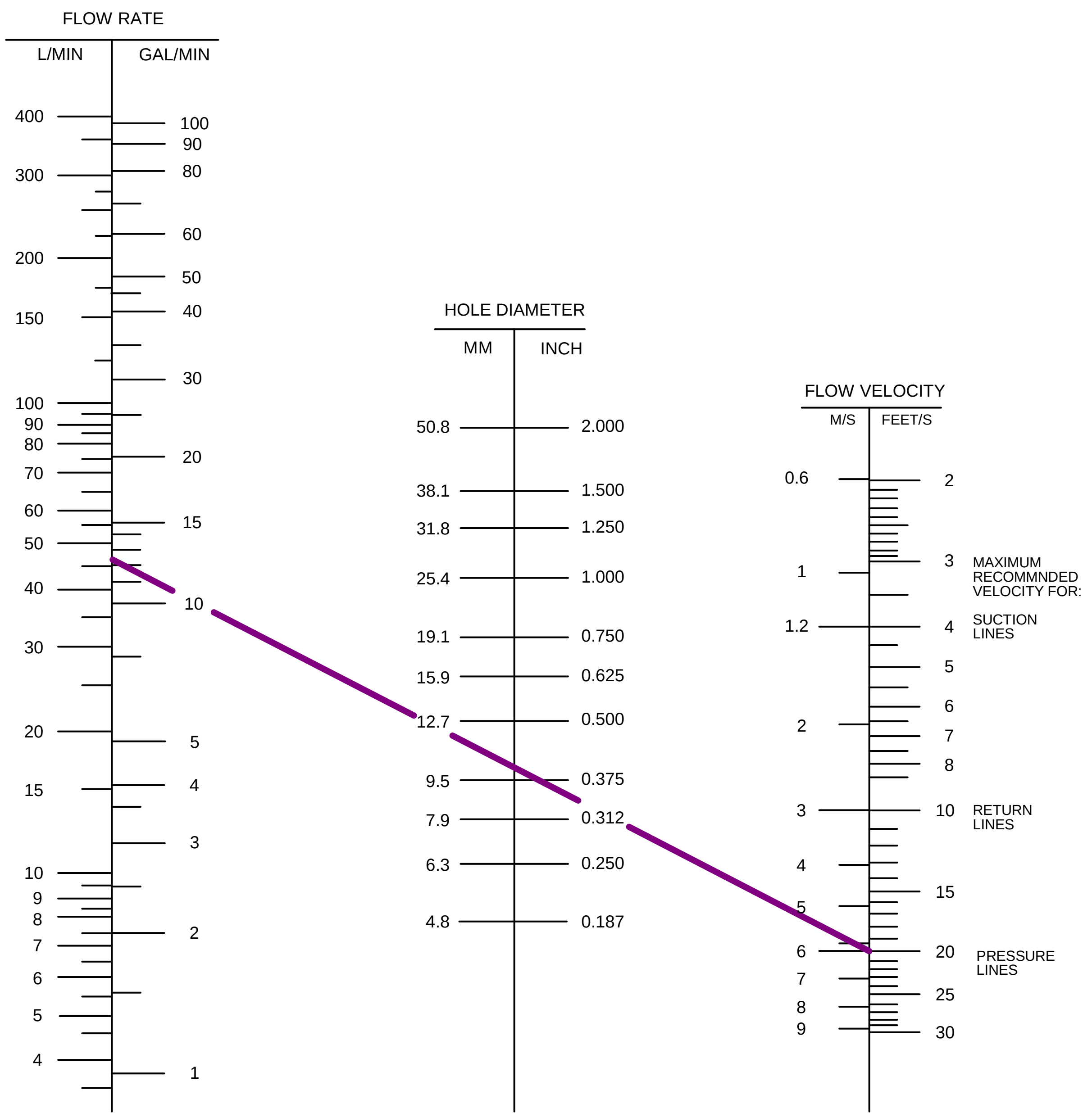
* Other colors available upon request

DETERMINATION OF THE INSIDE DIAMETER OF A PIPING SYSTEM

THE CHART BELOW DETERMINES THE INSIDE DIAMETER OF THE PIPE IN ACCORDANCE WITH THE FLOW RATE (L/MIN) AND THE FLOW VELOCITY V (M/S).

METHOD

EXAMPLE: FOR A FLOW RATE OF 45 L/MIN AND A FLOW VELOCITY V OF 6 M/S FIND THESE TWO FIGURES ON THE AXES OF THE CORRESPONDING SCALES AND THEN DRAW A STRAIGHT LINE POINTS. THE INTERSECTION POINT ON THE CENTRAL SCALE INDICATES THE INSIDE DIAMETER IN MM. HEREBY A VALUE BELOW ø 0.500" (12.7MM).
IT IS NECESSARY TO CHOOSE FOR THIS EXAMPLE INSIDE PIPE DIAMETER WITH ø 0.500" (12.7MM).

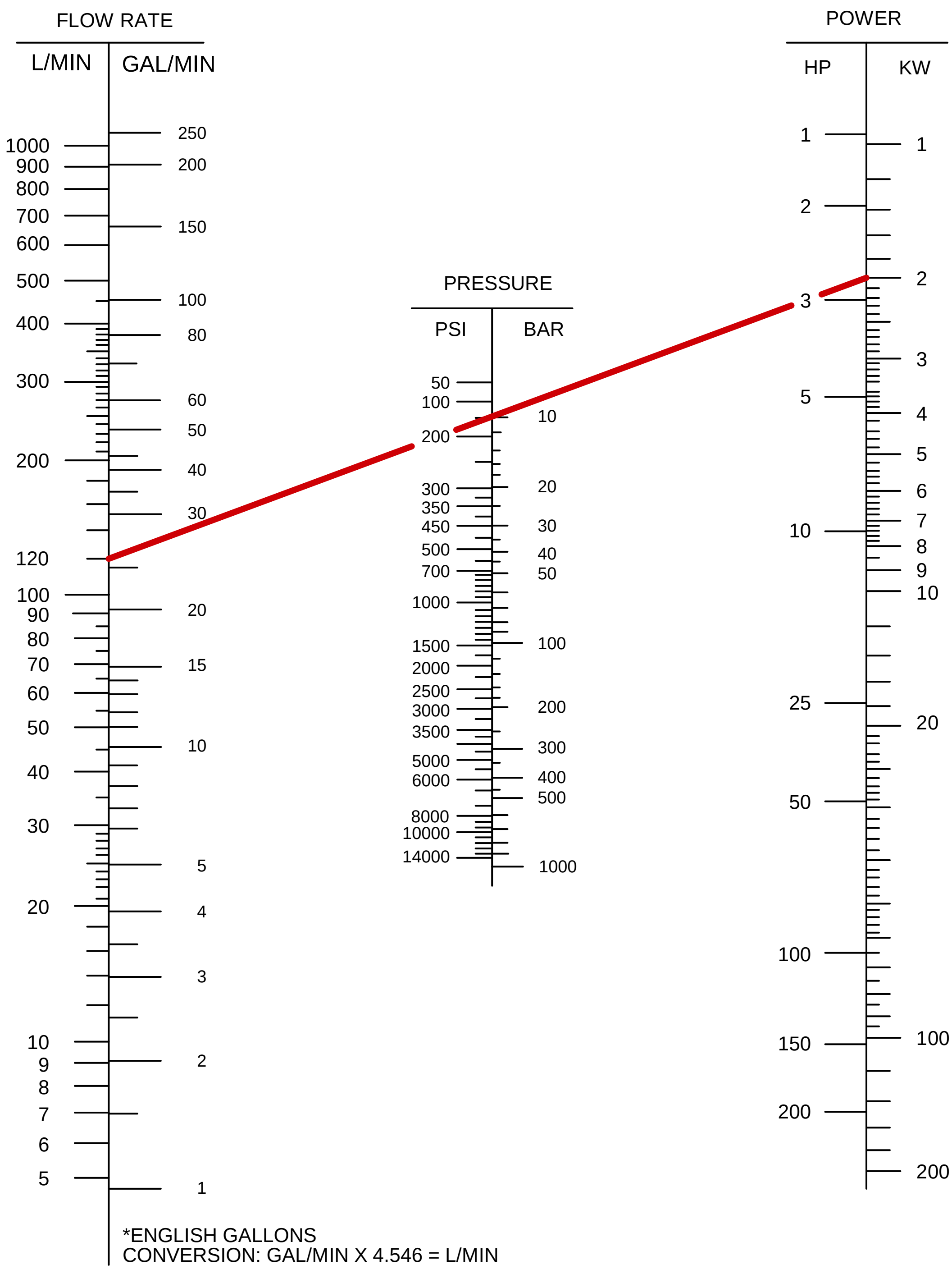


* GALLONS
CONVERSION: GAL/MIN X 3.78 = L/MIN
FEET/S X 0.3048 = M/S

THE CHART BELOW DETERMINES THE REQUIRED POWER ACCORDANCE WITH THE FLOW RATE AND WORKING PRESSURE

EXAMPLE: FOR A FLOW RATE OF 26 GAL/MIN AND A WORKING PRESSURE OF 150 PSI, REQUIRED HP WILL BE AROUND 3HP

FIND THE KNOWN VALUES ON THE TWO DIFFERENT AXES THEN DRAW A STRAIGHT LINE . THE INTERSECTION POINT ON THE THIRD AXE INDICATES THE RESEARCHED VALUE.



*ENGLISH GALLONS
CONVERSION: GAL/MIN X 4.546 = L/MIN

2 YEARS LIMITED WARRANTY

Hydro Custom warranties only products of its manufacture against operational failure occurring during normal use and caused by defective materials or workmanship in its product. This warranty does not apply to products that have been modified, repaired or used in abusive conditions. This warranty does not cover normal wear or wear caused by contamination.

Hydro Custom's product is warranted for 24 months from the date of manufacture.

Hydro Custom's obligation is to replace free of charge any part of its product that its inspection shows to be defective.

Hydro Custom's obligation is to replace free of charge any part of its product that its inspection shows to be defective.

Hydro Custom shall not be liable for loss of time, manufacturing costs, labor, material, loss of profits, consequential damages, direct or indirect, because of defective products, whether due to rights arising under the contract of sale or independently thereof, and whether or not such claim is based on contract, tort or warranty.

Any warranty return requires form number RMA001-2 to be filled out returned to Hydro Custom warranty department, at which point an RMA number will be issued with shipping instruction.

(This warranty voids all previous issues.) (Effective Date: January 2017)

ATELIER HYDRAULUC

2534, Boul. Ste-Sophie,
Ste-Sophie,
QC J5J 2V3

450-431-1233