

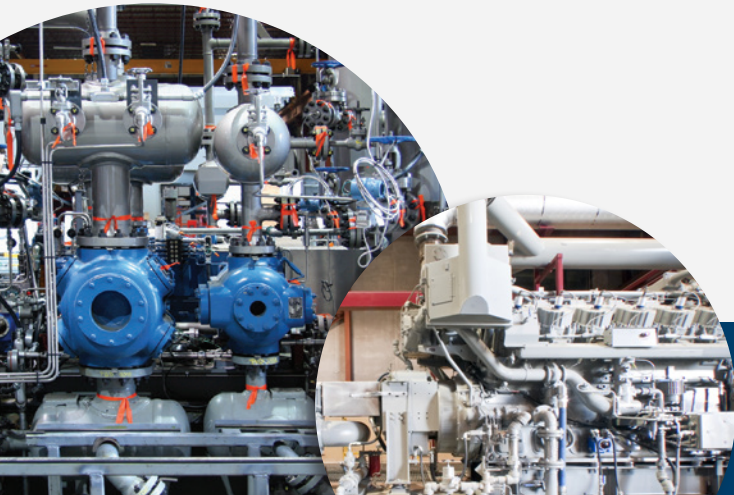
SMX Divider Blocks

PRODUCT DESCRIPTION

Divider blocks (also known as distribution blocks or divider valves) provided by CPI, part of the Howden group, precisely distribute correct lubrication, reducing the size of lubricator boxes and maximizing lubrication system efficiency.

CPI offers the DropsA® SMX product line as an affordable performance product featuring:

- Multiple base plate assembly mounting patterns for traditional industry bolt patterns
- Simplified ordering process to save time and reduce errors
- Proven performance for applications up to 4,000 psi (276 bar)
- Base assemblies are bolted together with a threaded insert and attachment screw providing no maximum limitation on the number of elements which can be used on the assembly
- A bypass element is available to accommodate an increase or decrease in lubrication points without disturbing the base assembly or pipe work (acts as a blank placeholder and is only used on four section or larger divider block assemblies)
- Each divider block assembly is easily configured to the customer's specific lubrication needs



CE Ex II 2 G c IIC T6

CPI
by Howden

BASE PLATE ASSEMBLIES

The SMX base plate assemblies are pre-assembled and available to accommodate three to eight elements. The design of the SMX allows for more elements to be added if required for the application, contact CPI for more details. Base plates are available in three traditional industry bolt patterns (DropsA®, Trabon®, Lincoln) and are fully assembled to simplify ordering and customer inventory. Each assembly comes with a 1/4" NPT to 1/4" OD tube inlet fitting - Part 6500500CMC44NSS



DESCRIPTION	PART TYPE	DROPSA BOLT PATTERN	LINCOLN BOLT PATTERN	TRABON BOLT PATTERN
SMX 3 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP3D	65003000SMXBP3L	65003000SMXBP3T
SMX 4 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP4D	65003000SMXBP4L	65003000SMXBP4T
SMX 5 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP5D	65003000SMXBP5L	65003000SMXBP5T
SMX 6 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP6D	65003000SMXBP6L	65003000SMXBP6T
SMX 7 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP7D	65003000SMXBP7L	65003000SMXBP7T
SMX 8 SECTION BASE PLATE	Base Plate Assemblies	65003000SMXBP8D	65003000SMXBP8L	65003000SMXBP8T

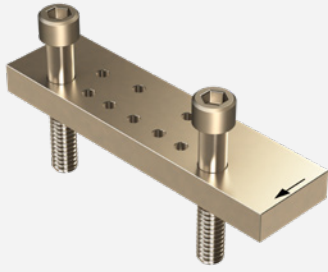
METERING ELEMENTS

SMX divider block metering elements range in size 04 to 65 with oil output from 0.0025 in³ (0.04 cc) to 0.080 in³ (1.30 cc). Twin elements (T) are ported to deliver oil to both left and right base outlet ports. Single elements (S) are ported to deliver oil to one base outlet port, either left or right side as desired. Crossport bars are available to configure oil output of the assembly. A crossport bar transfers the oil from the above element to the next element in series.

PART NO.	PART TYPE	DESCRIPTION	OIL VOLUME per working outlet	
			in ³	cc
650030000SMX04S	ELEMENTS	SMX 04S Element	0.005	0.08
650030000SMX04T	ELEMENTS	SMX 04T Element	0.0025	0.04
650030000SMX08S	ELEMENTS	SMX 08S Element	0.010	0.16
650030000SMX08T	ELEMENTS	SMX 08T Element	0.005	0.08
650030000SMX12S	ELEMENTS	SMX 12S Element	0.015	0.24
650030000SMX12T	ELEMENTS	SMX 12T Element	0.0075	0.12
650030000SMX16S	ELEMENTS	SMX 16S Element	0.020	0.32
650030000SMX16T	ELEMENTS	SMX 16T Element	0.010	0.16
650030000SMX25S	ELEMENTS	SMX 25S Element	0.030	0.50
650030000SMX25T	ELEMENTS	SMX 25T Element	0.015	0.25
650030000SMX35S	ELEMENTS	SMX 35S Element	0.040	0.70
650030000SMX35T	ELEMENTS	SMX 35T Element	0.020	0.35
650030000SMX40S	ELEMENTS	SMX 40S Element	0.050	0.80
650030000SMX40T	ELEMENTS	SMX 40T Element	0.025	0.40
650030000SMX50S	ELEMENTS	SMX 50S Element	0.060	1.00
650030000SMX50T	ELEMENTS	SMX 50T Element	0.030	0.50
650030000SMX60S	ELEMENTS	SMX 60S Element	0.070	1.20
650030000SMX60T	ELEMENTS	SMX 60T Element	0.035	0.60
650030000SMX65S	ELEMENTS	SMX 65S Element	0.080	1.30
650030000SMX65T	ELEMENTS	SMX 65T Element	0.040	0.65
650030000SMX00B	ELEMENTS	BYPASS Element	0.000	0.000



CROSSPORT BARS



PART NO.	PART TYPE	DESCRIPTION
650030000SMXCPL	Crossport Bars	SMX Crossport Bar Left
650030000SMXCPR	Crossport Bars	SMX Crossport Bar Right
650030000SMXCPB	Crossport Bars	SMX Crossport Bar Both

BASE PLATE CHECK VALVES

CPI recommends the use of the integral check valve and tube fitting with a 1/8" NPT geometry for SMX applications (Part 6500200421PRNPT). This check valve is stainless steel and features an VITON® O-Rings (FKM) poppet sealing element. This check valve is only available from CPI and CPI distributors. Other check valves are available if the recommended check valve does not meet the customer's application.



PART NO.	PART TYPE	DESCRIPTION
6500200421PRNPT	Base Plate Check Valves	SMX Base Plate Outlet Check Valve Tube Fitting, 1/8" NPT x 1/4" Tube, Poppet, Red Ring, 8,000 psi
650020000094731	Base Plate Check Valves	SMX Base Plate Outlet Check Valve, 1/8" NPT Male x 1/8" NPT Female, Poppet, Steel, 7,250 psi
650020000094732	Base Plate Check Valves	SMX Base Plate Outlet Check Valve, 1/8" NPT Male x 1/8" NPT Female, Poppet, Stainless, 7,250 psi
650020000094735	Base Plate Check Valves	SMX Base Plate Outlet Check Valve, 1/8" NPT Male x 1/8" NPT Female, Ball, Steel, 5,000 psi
650020000094736	Base Plate Check Valves	SMX Base Plate Outlet Check Valve, 1/8" NPT Male x 1/8" NPT Female, Ball, Stainless, 5,000 psi

BASE PLATE FITTINGS

CPI offers other 1/8" ORB fittings to support customer's specific needs. Industry standard 1/8" NPT fittings can be used with sealant if a 1/8" ORB fitting solution is not available.



PART NO.	PART TYPE	DESCRIPTION
6500500CMC44NSS	Base Plate Fittings	SMX Base Plate Inlet Tube Fitting 1/4" NPT Male x 1/4" Tube
6500500CAM44NSS	Base Plate Fittings	SMX Tube Adapter Fitting, 1/4" NPT Male x 1/4" Tube Stub

MOUNTING BRACKETS

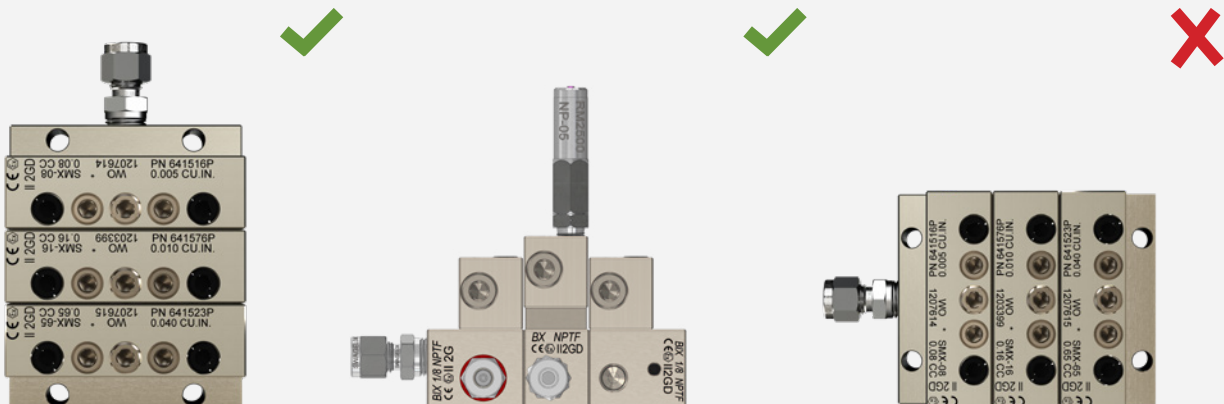
CPI offers numerous mounting bracket options.



PART NO.	PART TYPE	DESCRIPTION	FITS DIVIDER BLOCK SIZE
6500300000DBMBL	Mounting Brackets	Divider Block Mounting Bracket, L Configuration	All
6500300000DBMBZ	Mounting Brackets	Divider Block Mounting Bracket, Z Configuration	All
6500300DBMB9008	Mounting Brackets	Divider Block Mounting Bracket, 90 Degree Configuration (8")	3-5 Section SMX Blocks
6500300DBMB9010	Mounting Brackets	Divider Block Mounting Bracket, 90 Degree Configuration (10")	6-7 Section SMX Blocks
6500300DBMB9012	Mounting Brackets	Divider Block Mounting Bracket, 90 Degree Configuration (12")	8 Section SMX Blocks

MOUNTING RECOMMENDATIONS

Always mount a divider block to a flat surface with an approved orientation. Metering element piston-to-bore clearance is extremely close and precise. Any distortion that occurs during mounting can create piston-to-bore binding which leads to inconsistent operation, accelerated wear, and lubrication system shutdowns.

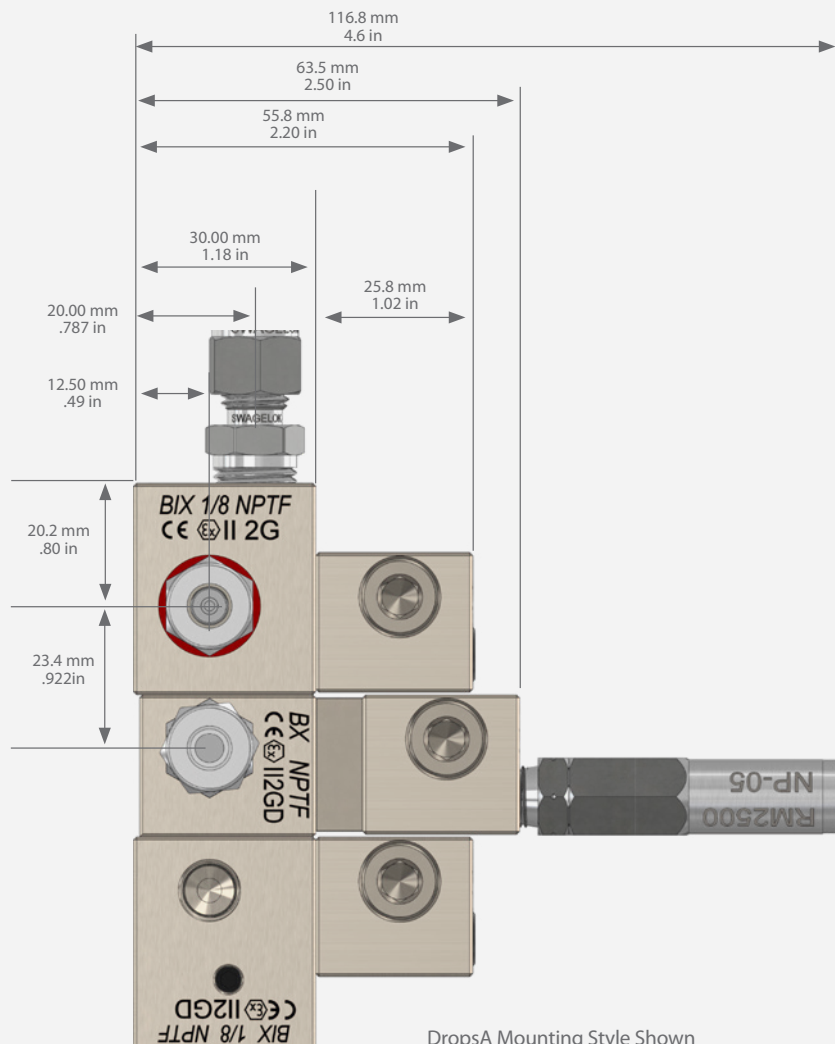


REPLACEMENT PARTS KITS

CPI offers the following replacement parts for field maintenance and service work.

PART NO.	PART TYPE	DESCRIPTION
65003SMX18BSPPK	Replacement Part Kits	SMX Element 1/8" BSP Port Plug Kit, Qty 25 Element Pin Indicator Ports
650030000SMXPPK	Replacement Part Kits	SMX Element Piston Port Plug Kit, Qty 25
6500300SMXESOAK	Replacement Part Kits	Single Element Outlet Adapter Kit, Qty 25 Convert a Twin Outlet Element to Single Outlet
6500300SMXETOAK	Replacement Part Kits	Twin Element Outlet Adapter with Sealing Disc Kit, Qty 25 Convert a Single Outlet Element to a Twin Outlet
65003SMX18NPTPK	Replacement Part Kits	1/8" NPT Port Plug Kit, Qty 25 SMX Base Plate Outlet Ports
65003000SMXVORK	Replacement Parts Kit	O-Ring Kit, AS568-006, Green Viton®, Qty 150 Standard SMX Small Hydraulic Passage O-Rings
65003000SMXESHK	Replacement Parts Kit	SMX Element SHCS Kit, 1/4-28 x 1.25, Qty 50 Mounts SMX Elements to Base Plates

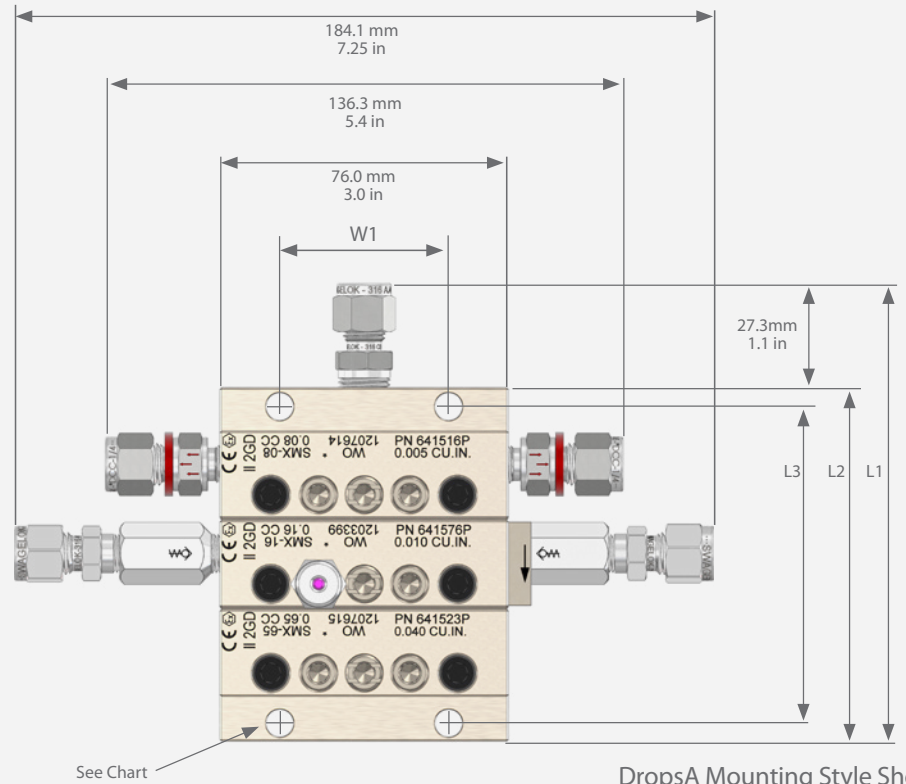
PRODUCT DIMENSIONS



PRODUCT DIMENSIONS

MOUNTING HOLE DIAMETER		
STYLE	INCHES	mm
DROPSA	0.283	7.2
LINCOLN	0.344	8.8
TRABON	0.283	7.2

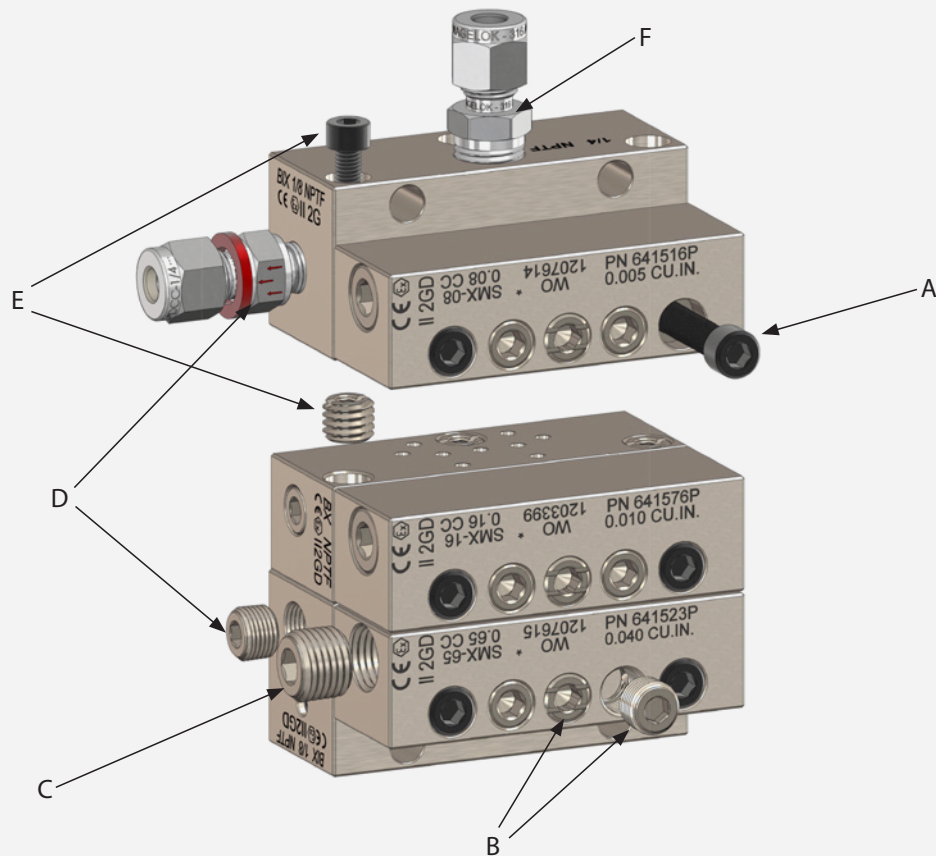
W1 DIMENSIONS		
STYLE	INCHES	mm
DROPSA	1.750	44.5
LINCOLN	1.875	47.6
TRABON	1.750	44.5



DropsA Mounting Style Shown

DROPSA			LINCOLN			TRABON		
3 ELEMENT	INCHES	mm	3 ELEMENT	INCHES	mm	3 ELEMENT	INCHES	mm
L1	4.85	123.2	L1	5.93	150.6	L1	5.74	145.7
L2	3.66	93.0	L2	4.74	120.4	L2	4.55	115.5
L3	3.276	83.2	L3	3.375	85.7	L3	3.578	90.9
4 ELEMENT	INCHES	mm	4 ELEMENT	INCHES	mm	4 ELEMENT	INCHES	mm
L1	5.77	146.7	L1	6.85	174.1	L1	6.66	169.1
L2	4.58	116.4	L2	5.66	143.8	L2	5.47	138.9
L3	4.198	106.6	L3	4.297	109.1	L3	4.500	114.3
5 ELEMENT	INCHES	mm	5 ELEMENT	INCHES	mm	5 ELEMENT	INCHES	mm
L1	6.70	170.1	L1	7.78	197.5	L1	7.58	192.5
L2	5.51	139.9	L2	6.59	167.3	L2	6.39	162.3
L3	5.120	130.0	L3	5.219	132.6	L3	5.422	137.7
6 ELEMENT	INCHES	mm	6 ELEMENT	INCHES	mm	6 ELEMENT	INCHES	mm
L1	7.62	193.5	L1	8.70	220.9	L1	8.50	216.0
L2	6.43	163.3	L2	7.51	190.7	L2	7.31	185.7
L3	6.042	153.5	L3	6.141	156.0	L3	6.344	161.1
7 ELEMENT	INCHES	mm	7 ELEMENT	INCHES	mm	7 ELEMENT	INCHES	mm
L1	8.54	216.9	L1	9.62	244.3	L1	9.42	239.4
L2	7.35	186.7	L2	8.43	214.1	L2	8.23	209.1
L3	6.964	176.9	L3	7.063	179.4	L3	7.266	184.6
8 ELEMENT	INCHES	mm	8 ELEMENT	INCHES	mm	8 ELEMENT	INCHES	mm
L1	9.46	240.3	L1	10.54	276.7	L1	10.35	262.8
L2	8.27	210.1	L2	9.35	237.5	L2	9.16	232.6
L3	7.886	200.3	L3	7.985	202.8	L3	8.188	208.0

TORQUE SPECIFICATIONS



LOCATION	DESCRIPTION	TORQUE (IN-LBS)	TORQUE (N-m)
A	Element SHCS	60	6.8
B	Pin Indicator Port Plugs and Single/Twin Adapter Plugs	106	12
C	Element Piston Port Plug and Accessories (Neomag® and Shutdown Device Magnet Assembly)	144	16
D	Base Plate Port Plug and Check Valves	144	16
E	Grub Screw and Base Plate SHCS	50	5.6
F	Inlet Tube Fitting	300	34

NOTES:

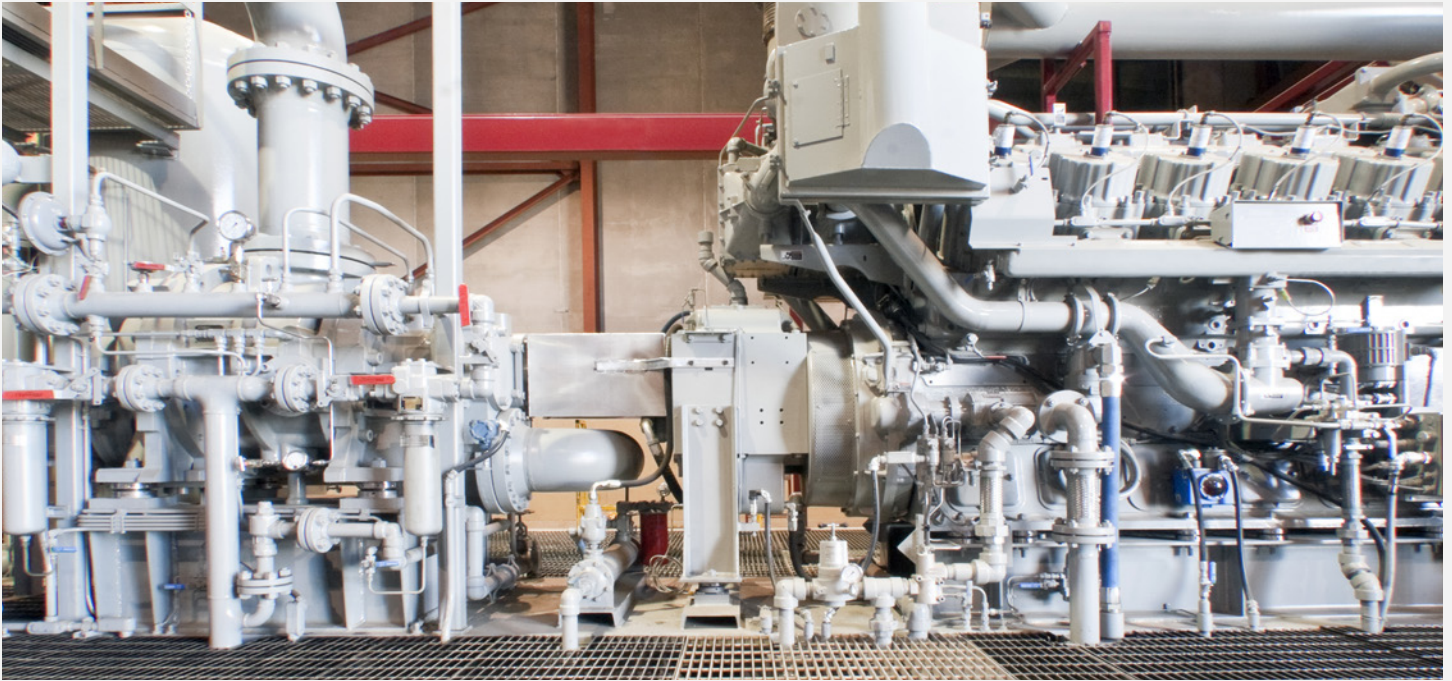
Values under 100 in lb have a tolerance of ± 5 in lb (0.5 N-m). Values over 100 in lb have a tolerance of ± 10 in lb (1.1 N-m).

Recommended practice to lubricate element bolt threads with oil for improved torque accuracy.

ELEMENT INSTALLATION PROCEDURE:

Step 1: Seat the element by lightly tightening both SHCS to around 30 in lb (3.4 N-m)

Step 2: Torque both SHCS to 60 in lb (6.8 N-m)



CPI, part of the Howden group, provides industry leading lubrication system products and services, partnering with our customers to develop individual solutions to their unique lubrication needs. From individual components to complete, turnkey systems, we can provide the resources and expertise to ensure your compressor operates at peak performance and longevity.



© 2022 CPI. All rights reserved
*Viton® is a registered trademark of the Chemours™
Company. DropsA® is a registered trademark of DropsA
USA, Inc. Trabon® is a registered trademark of Graco, Inc.