



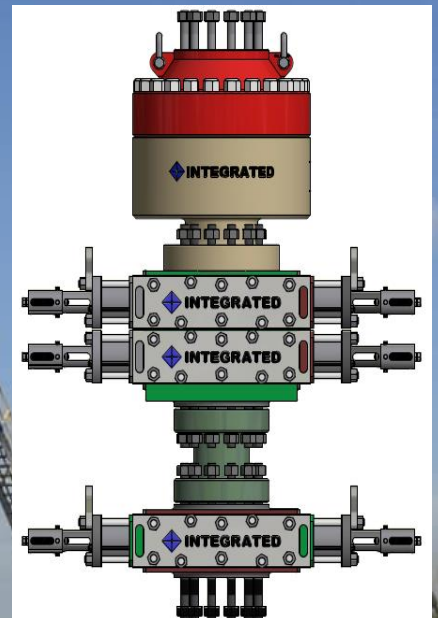
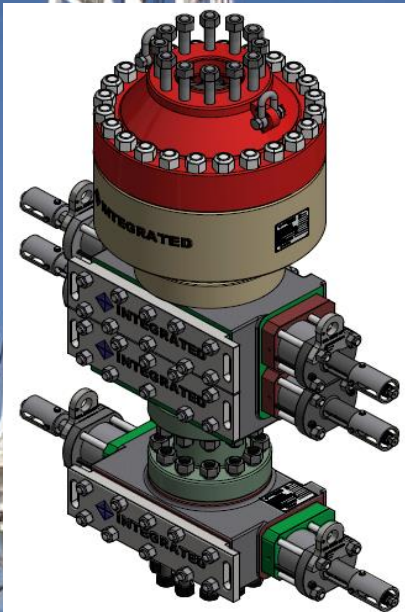
INTEGRATED[®]

OEM RAM IE[™] BOP CATALOG

INTEGRATED[®]

is an established OEM manufacturer of API Monogrammed Pressure Control Equipment and Spare Parts that meets or exceed industry Requirements. All products are designed, engineered, manufactured, and validated as per latest edition of API 6A, 16A, 20E & ASME Standards & Specifications.

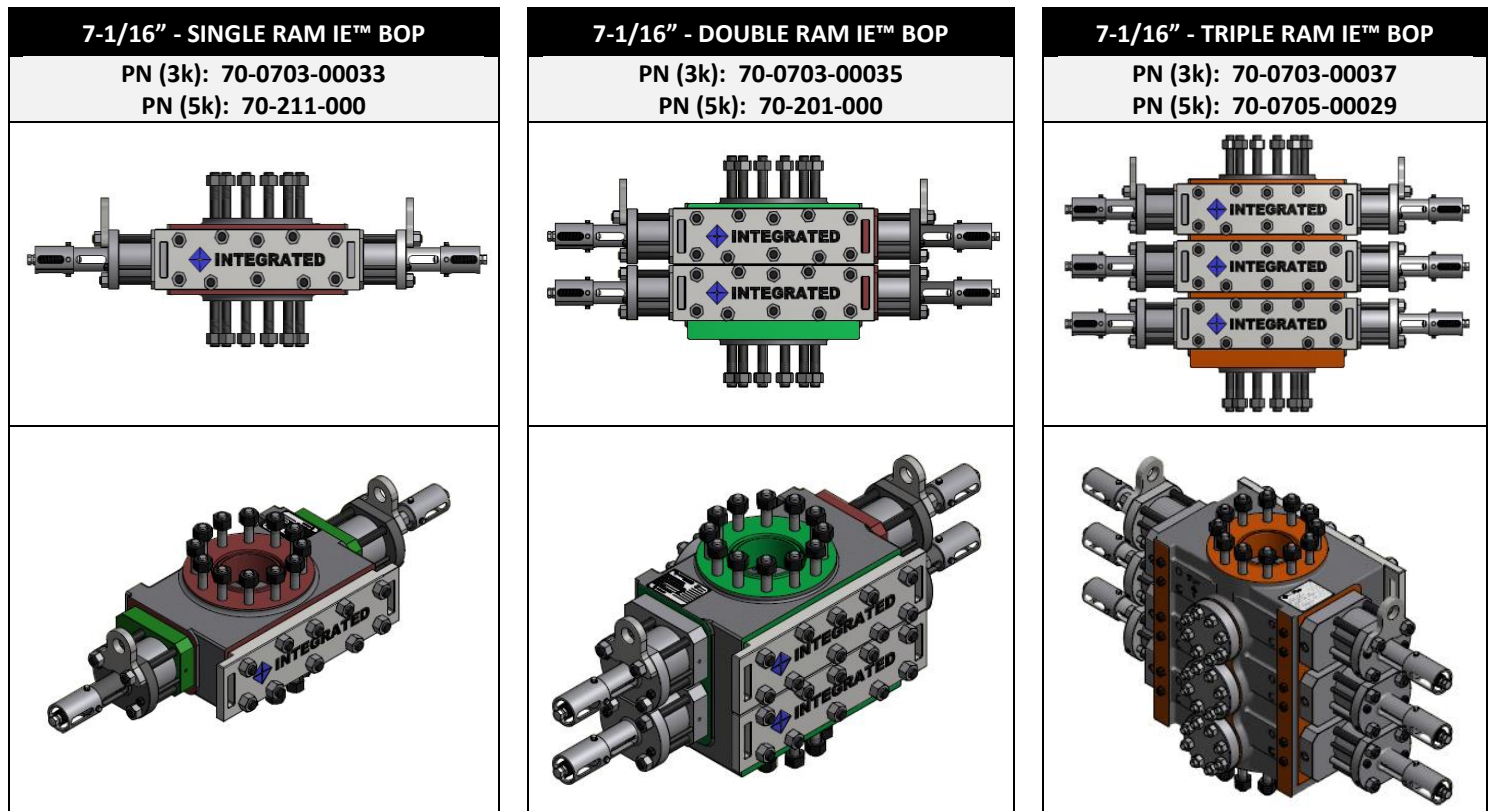
The INTEGRATED[®] IE[™] Ram BOP (WSI Style) is the most widely used workover API Monogrammed Blowout Preventer globally due to its compact design. The IE[™] Ram is offer as a single, double and triple ram BOP with a variety of top and bottom connections. Ram Blocks & Assemblies range from CSO to 5-1/2" in sizes and our I-FLEX[™] that ranges from 2-3/8" to 2-7/8" within the assembly.



INTEGRATED[®] is an API licensed Original Equipment Manufacturer (OEM) of Pressure and Flow Control Equipment for the Global Workover, Snubbing, Drilling, Rental and Production sectors of the Oil and Gas Industry

INTEGRATED OEM API 16A MONOGRAMMED TYPE IE™ RAM BLOWOUT PREVENTER

The Integrated Model **IE™** Ram Type Blowout Preventer (BOP) is used to contain wellbore pressure for onshore and inland water workover and small-bore drilling application. The **IE™** Ram BOP has a shorter height and lighter weight design for rugged compact pressure control operations. Easily maintained with a long history of field proven reliability.



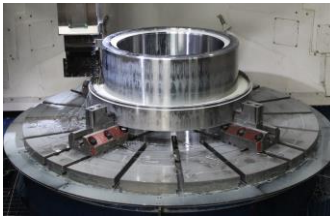
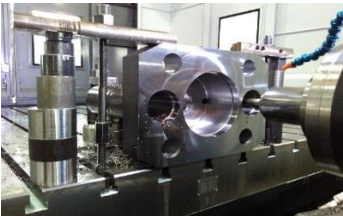
PRODUCT SPECIFICATIONS

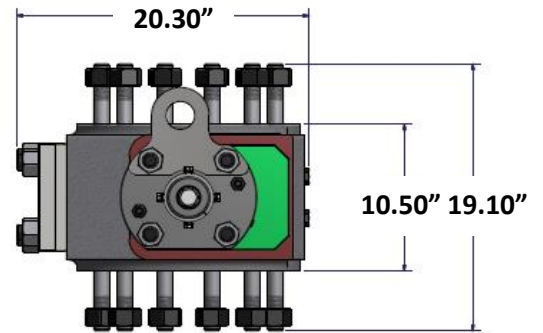
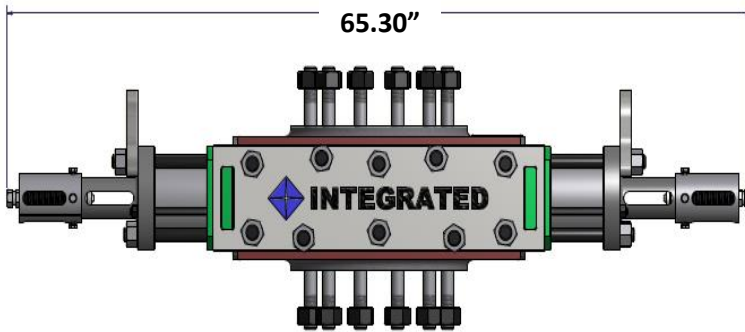
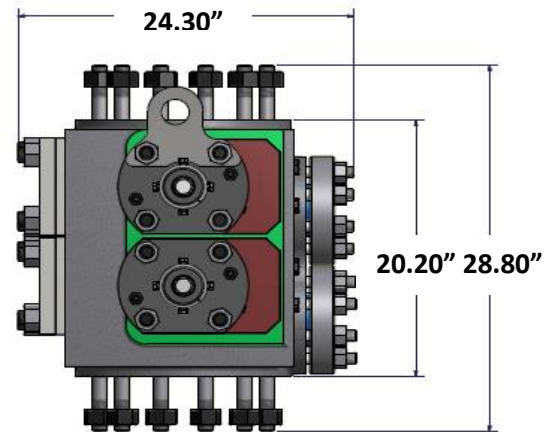
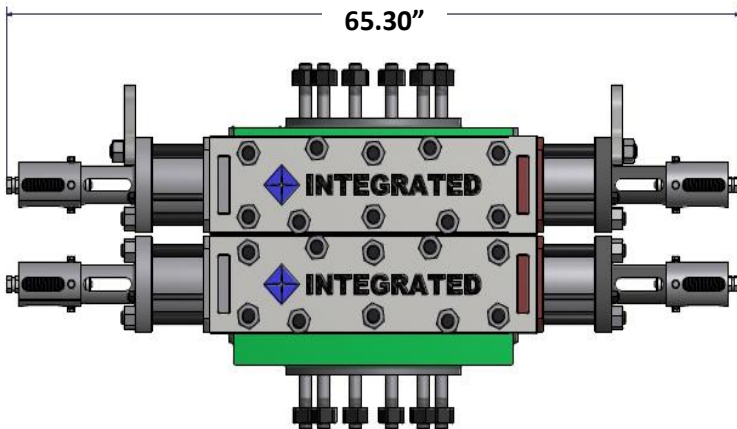
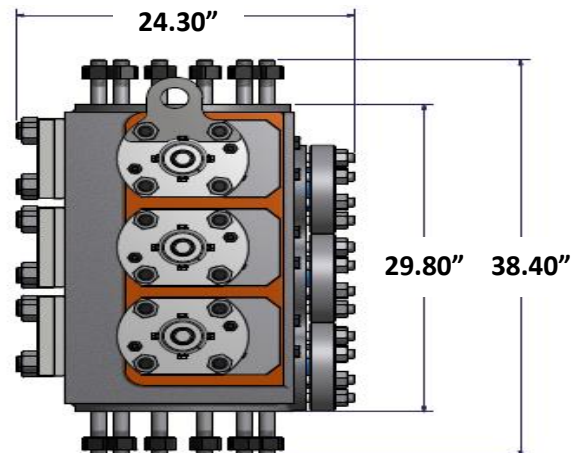
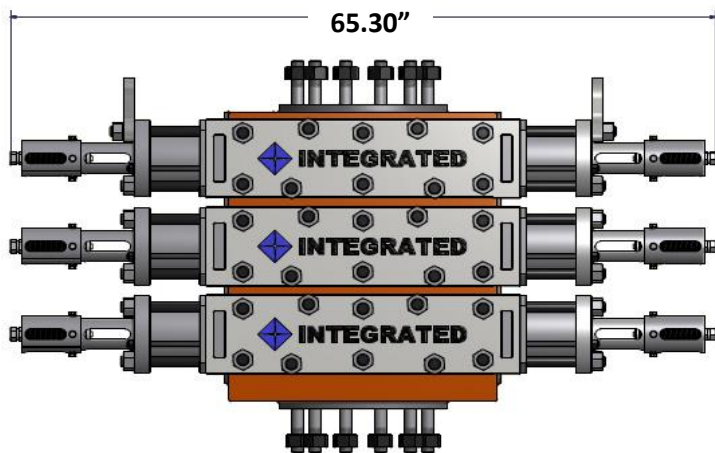
- Designed and manufactured to ISO 13533 (API 16A) for Drill-through equipment
- API 16A Monogrammed
- Designed as standard to ISO 15156-1 (NACE MR-0175) for use in hydrogen sulfide environments (H2S)
- Material: A-487D, 75k
- Temperature Class: T-20
- Non-Metallic Seal Temperature Rating: BB
- Xylan coated internals for operational performance and corrosion control
- Manual Ram locking device
- Interchangeable parts between 3,000 and 5,000 psi **IE™** models
- The hydraulic fluid wetted dynamic sealing surfaces are either hard chrome plated or hard faced assuring maximum performance
- Ring Grooves are standard carbon steel. Other options are SS316 and Inconel.
- Top and Bottom Connections: Studded x Studded is our standard. Other configurations are available upon request.
- Studded Outlets: Single - None | Double - Two (2) x 2-1/6" – 5k (R24) | Triple: Three (3) x 2-1/16" – 5k (R24)

**INTEGRATED OEM API 16A MONOGRAMMED
TYPE IE™ RAM BLOWOUT PREVENTER****PRODUCT FEATURES AND BENEFITS**

- Easy field maintenance.
- All components with dynamic sealing surfaces in the bonnet assembly can be replaced in the field.
- Large assortment of ram sizes available (CSO, Pipe – 1.66” through 5”)
- Integrated **IE™** Ram Carded Seal Kit (per cavity) Part Number: 70-102-041k
- Integrated **IE™** Ram Door Seal (Molded) Part Number: 17-110-102
- The component parts of a Model **IE™** Blowout Preventer are suitable for use as replacement parts for most WSI style ram type blowout preventers
- All maintenance can be done with standard tools
Lifting Plates are designed to meet or exceed safety loads for this style BOP

Integrated’s API Certified – Licensed OEM plants provide state-of-the-art manufacturing of our Engineered-Designed Pressure Control Equipment and Elastomeric Products. Integrated - JD Edwards ERP system integrates our global manufacturing and distribution facilities.



**INTEGRATED OEM API 16A MONOGRAMMED
TYPE IE™ RAM BLOWOUT PREVENTER**
PRODUCT DIMENSIONS AND WEIGHTS
7-1/16" - 3 | 5K SINGLE (SR) RAM IE™ BOP (Weight: 1,180 lbs)

7-1/16" - 3 | 5K DOUBLE (DR) RAM IE™ BOP (Weight: 2,391 lbs)

7-1/16" - 3 | 5K TRIPLE (TR) RAM IE™ BOP (Weight: 3,504 lbs)


INTEGRATED OEM API 16A MONOGRAMMED TYPE IE™ RAM BLOWOUT PREVENTER

IE™ PRODUCT OPERATING DATA AND FLUID REQUIREMENT

Bonnets	BORE SIZE (in)	WORKING PRESSURE (PSI)	GALLONS TO OPEN	GALLONS TO CLOSE	PISTON STROKE (in)	OPERATING PRESSURE (psi bar)
Standard	7-1/16	3,000 5,000	.33 (1.24 liters)	.35 (1.32 liters)	4 (101 mm)	1,500 102

IE™ RAM CARDED SEAL KITS

Seal Kit Description	Size (in.)	Pressure (psi)	Part Number	Weight Per Kit
7-1/16" 3M-5M IE™ Ram Hydraulic Standard Complete Seal Kit	7-1/16	3 5k	70-102-041K	3.00 lbs 1.36 kg
7-1/16" 3M-5M IE™-T81 Ram Hydraulic Standard COMBO Complete Seal Kit	7-1/16	3 5k	70-IE81-5k	3.00 lbs 1.36 kg
7-1/16" 3M-5M T81 Ram Hydraulic Standard Complete Seal Kit	7-1/16	3 5k	70-TH8100 (TH8100)	3.00 lbs 1.36 kg
7-1/16" 3M-5M T81 Ram Manual Standard Complete Seal Kit	7-1/16	3 5k	70-TM8100 (TM8100)	2.20 lbs 1.00 kg
7-1/16" 3M-5M Sentry Ram Hydraulic Standard Complete Seal Kit	7-1/16	3 5k	70-3117169	4.00 lbs 1.45 kg
7-1/16" 3M-5M IE™ Ram Molded Door Seal (Standard Temperature)	7-1/16	3 5k	17-110-102	0 lbs 0.00 kg
7-1/16" 3M-5M IE™ Ram Molded Door Seal (High Temperature)	7-1/16	3 5k	70-0705-00025-HT	0 lbs 0.00 kg



INTEGRATED RAM BOP CARDED SEAL KIT

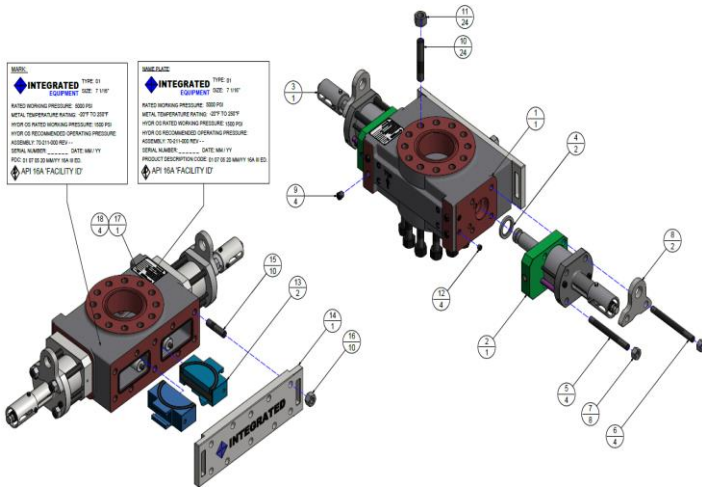
7-1/16" - 3 | 5k RAM BOP COMPONENT BREAKDOWN

Item	Part Description	Part Number	Quantity
1	DRBOP BODY, STUDDED BOTTOM X TOP 7-1/16 - 5000 MWP, WITH (3) 2-1/16 - 5K STD OUTLETS	70-200-001	1
2	BONNET ASSEMBLY, LH RBOP 7-1/16 - 5000 MWP	70-201-002	2
3	BONNET ASSEMBLY, RH RBOP 7-1/16 - 5000 MWP	70-201-001	2
4	SEAL RING (TEFLON)	17-080-050	4
5	PAD STUD, 1.00-8UNC-2A x 10.62 LONG	25-100-090	12
6	PAD STUD, 1.00-8UN-2A x 11.62 LONG	30-000015	4
7	HEAVY HEX NUT, 1.00-8UNC-2B	25-100-051	16
8	LIFTING PLATE, RBOP 7-1/16" - 5K MWP	70-0705-00043	2
9	HEX XCREW, ¼ NPT	15-010-140	8
10	PAD STUD, 1.375-8UN-2A x 7.25 LONG	25-100-142	24
11	HEAVY HEX NUT, 1.375-8UN-2B	25-100-141	24
12	BLIND FLANGE 2-1/16" - 5000 MWP	08-620-003	2
13	API R24 RING GASKET (SS)	API-R02413	2
14	PAD STUD, .875-9UNC-2A x 4.50 LONG	25-100-001	16
15	HEAVY HEX NUT, .875-9UNC-2B	25-100-002	16
16	PIPE PLUG, SOCKET HEAD ¼ NPT	15-010-130	8
17	BLIND RAM ASSEMBLY, RBOP 7-1/16" - 5000 MWP	70-203-000	2
18	PIPE REAM ASSEMBLY, RBOP 7-1/16" - 5000 MWP x 2-7/8"	70-203-001-3	2
19	PRESSURE DOOR ASSEMBLY RBOP 7-1/16" - 50000 MWP	70-200-016	2
20	PAD STUD, 1.125-8UN-2A x 4.75 LONG	25-100-322	20
21	HEAVY HEX NUT, 1.125-8UN-2B	25-100-101	20
22	NAME PLATE BOP	95-05-304	1
23	NAIL, EASY-DRIVE	26-051-002	4

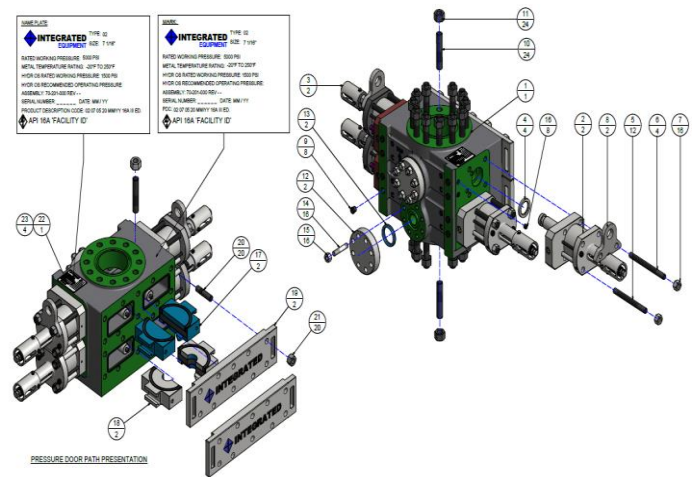
INTEGRATED OEM API 16A MONOGRAMMED TYPE IE™ RAM BLOWOUT PREVENTER

7-1/16" - 3 | 5k RAM IE™ BOP SEAL KIT BREAKDOWN (Complete Kit Number: 70-102-041K | Per Cavity)

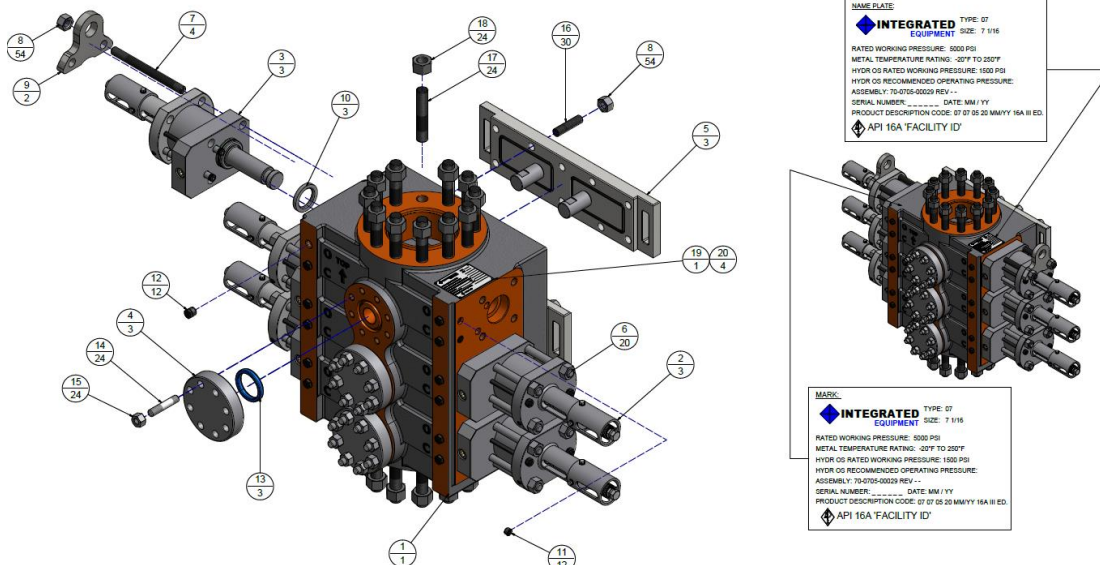
Item	Seal Description	Seal Product Code	Single - Quantity	Double - Quantity	Triple - Quantity
37A	Seal Sleeve O-Ring	17-070-100	16	32	48
37B	Teflon Ring	17-080-050	2	4	6
37C	Bonnet ID T-Seal	17-081-129	2	4	6
37D	Injection Energizing Ring	17-080-002	2	4	6
37E	Injection Packing Ring	17-080-001	2	4	6
37F	Polypak Ring	17-091-001	4	8	12
37G	Wiper Ring	17-085-001	2	4	6
37H	Molded Door Seal	17-110-102	2	4	6
37J	Non-Extrusion Ring	17-101-102	2	4	6
37K	Piston Rod O-Ring	17-090-106	4	8	12
37L	Piston Rod Back-Up Ring	17-091-106	8	16	24
37M	Cylinder O-Ring	17-090-105	4	8	12
37N	Cylinder Back-Up Ring	17-091-105	8	16	24
37O	Piston T-Seal	17-081-051	2	4	6
37P	End Cover T-Seal	17-081-125	2	4	6



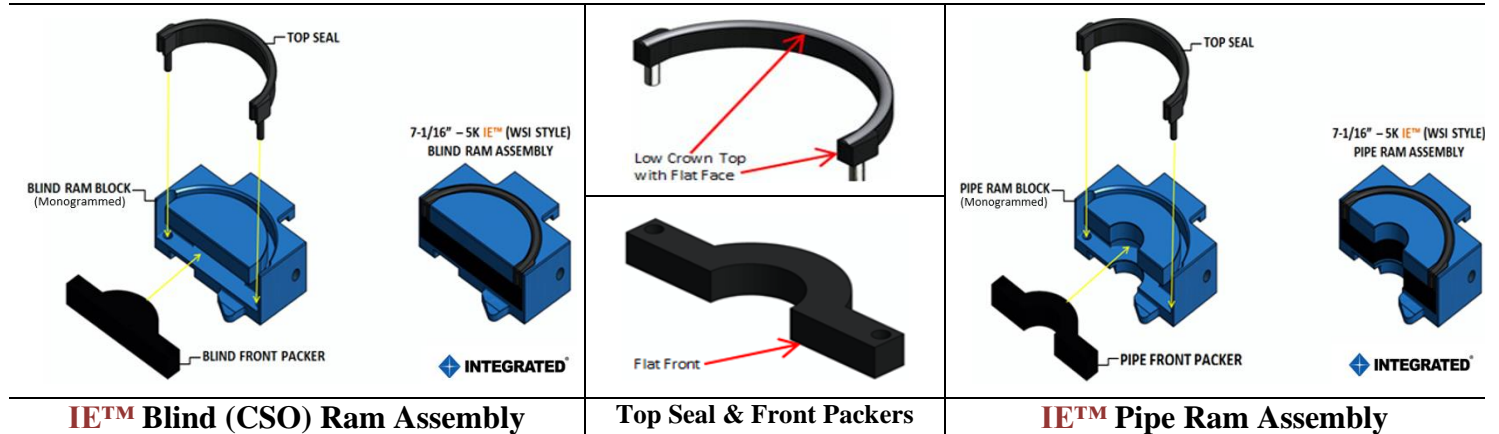
7-1/16" - 3/5k, Single (SR) Ram IE™ BOP Parts Breakdown



7-1/16" - 3/5k, Double (DR) Ram IE™ BOP Parts Breakdown



7-1/16" - 3/5k, Triple (TR) Ram IE™ BOP Parts Breakdown

**INTEGRATED OEM API 16A MONOGRAMMED
TYPE IE™ RAM BLOWOUT PREVENTER**
IE™ 7-1/16 - 3 | 5K RAM BOP (WSI STYLE)
RAM ASSEMBLIES | RAM BLOCKS | FRONT PACKERS | FLEX PACKER | TOP SEALS

IE™ CSO AND PIPE RAMS

IE™ Ram Block Size	IE™ Assembly Part Number	IE™ Assembly Sub-Component Part Number		
		Block	Front Packer	Top Seal
CSO	70-203-001	70-202-001	70-101-001-1	70-101-000-F
1.66"	70-203-001-15	70-202-001-0	70-101-002-15	70-101-000-F
1.90"	70-203-001-1	70-202-001-1	70-101-002-1	70-101-000-F
2-1/16"	70-203-001-11	70-202-001-11	70-101-002-11	70-101-000-F
2-3/8"	70-203-001-2	70-202-001-2	70-101-002-2	70-101-000-F
2-7/8"	70-203-001-3	70-202-001-3	70-101-002-3	70-101-000-F
3-1/2"	70-203-001-5	70-202-001-5	70-101-002-5	70-101-000-F
4"	70-203-001-6	70-202-001-6	70-101-002-6	70-101-000-F
4-1/2"	70-203-001-7	70-202-001-7	70-101-002-7	70-101-000-F
5"	70-203-001-8	70-202-001-8	70-101-002-8	70-101-000-F
5-1/2"	70-203-001-13	70-202-001-13	70-101-002-13	70-101-000-F

I-FLEX™

I-FLEX™ Size	I-FLEX™ Assembly Part Number	I-FLEX™ Assembly Sub-Component Part Number		
		Block	Front Packer	Top Seal
2-3/8" to 2-7/8"	70-203-001-25	70-202-001-3	70-202-001-3	70-101-000-F



GLOBAL DISTRIBUTION OF INTEGRATED MANUFACTURED PRESSURE CONTROL EQUIPMENT & ELASTOMERS
USA | Canada | Mexico | Colombia | Dubai | Singapore | Australia | Bahrain

INTEGRATED®

GLOBAL HEADQUARTERS

5701 Brittmoore Road, Houston, Texas 77041 USA

Contact: 713-785-7075 | Fax: 713-785-7099 | Email: sales@integratedwww.com | Website: integratedwww.com

INTEGRATED ELASTOMERS® USA

OEM ELASTOMER MANUFACTURING PLANT

31811 Industrial Park Drive, Pinehurst, Texas 77362 USA

INTEGRATED EQUIPMENT® WEST TEXAS USA

DISTRIBUTION FACILITY

13020 Hwy 191 – Suite H, Midland, Texas 79707 USA

INTEGRATED EQUIPMENT® LIMITED

OEM EQUIPMENT MANUFACTURING PLANT

Pune-Nagar Highway, Kondhapuri, Pune 412209

❖ Australia ARLF (Authorized Repair License Facility) & Distribution

Well Control Solutions (WCS)

24 Enterprise Street, Richlands, QLD 4077

Contact: +61-7-3375-4388 | Email: sales@well-control.com.au



❖ Canada ARLF (Authorized Repair License Facility) & Distribution

Red Deer Well Control (RDWC)

6670 – 53rd Avenue, Unit #B, Edmonton, Alberta T6B 3H8

Contact: +780-466-3149 | Email: aspalding@rdwc.com

