



MEDUSA® CT

PRODUCT DATA SHEET

PRODUCT APPLICATION

Medusa® CT cutting technology was developed specifically for Thru Tubing P&A to meet the need for permanent rock to rock barrier placement without the need to remove production tubing.

PRODUCT DESCRIPTION 

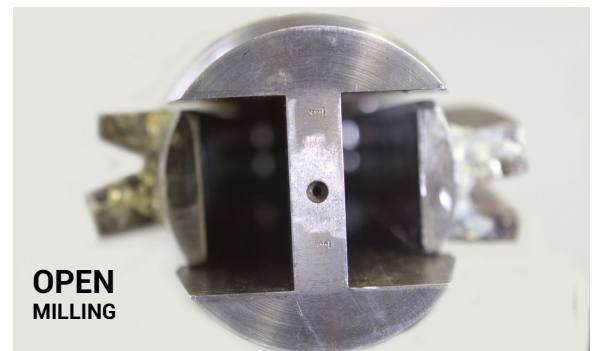
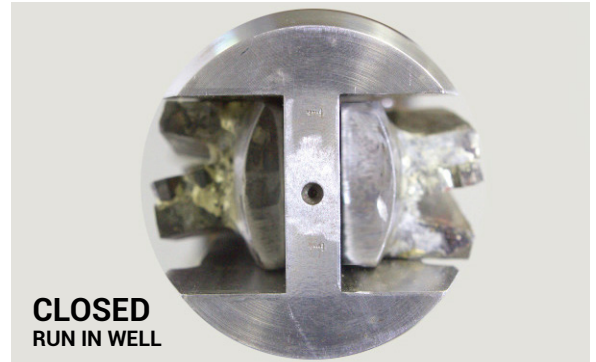
Medusa® CT is the latest patent pending cutting and section milling innovation in a long line of proven dual string section milling tools from P&A specialists, Abrado Wellbore Services.

Medusa®CT is backed by Abrado's extensive experience in dual string section milling for P&A applications and is run on conventional coiled tubing. The Medusa® CT is fully stabilized while milling upwards below a left hand rotation mud motor and Abrado's patent pending CT Release Tool.

This breakthrough technology allows operators to section mill windows in the tubing and casing and underream to rock formation, thereby further reducing P&A costs while ensuring positive barrier placement.

PRODUCT FEATURES

- Single or Dual casing string section milling
- Custom designed to fit individual tubing architectures
- Utilizes Abrado's patented, self-centralizing milling system
- Proprietary cutter technology ensures NO harm to outer string of casing
- Eliminates eccentric tubular interaction
- Scrubs ID of outer casing or underreams to formation
- Swarf left in well eliminating surface swarf handling
- Blade lengths customized for varying window lengths
- Short BHA length (<6') (not including motor and CT Release Tool)
- Field redressable



MEDUSA® CT DIMENSIONAL DATA

OD	LENGTH	WEIGHT	CONNECTION TYPE	CASING OD TO MILL	UNDER REAM OR CASING SCRUB ID
3.56"	58.5"	101 LBS.	2 3/8" PAC PIN	4.50", 5.00"	4.5" TO 7" OD
4.125"	61.375"	177 LBS.	2 3/8" PAC PIN	5.50", 7.00", 7 5/8"***	5 1/2" TO 9 5/8"***

*depending on connection type/weight/grade



MEDUSA® CT Section Milling and Cutting Technology

PRODUCT DATA SHEET

Medusa® Product Family Specifications

MEDUSA® CT DUAL SECTION MILL

TOOL OD (inches)	Length (inches)	Minimum Casing OD (inches)	Maximum Casing OD (inches)	Milling Direction up/down/both	Under Ream or Casing Scrub Max OD (inches)	Suggested Operating Parameters			Connection top	Deployed on
						weight/pull - Klbs	Rotation - RPM	Torque - ft/lbs		
3.500	60.38	4-1/2	5	Up	7.00	1	200-400	200-700	(2-3/8 PAC PIN UP)	Coiled tubing
4.125	61.38	5-1/2	7	Up	10.00	1.5	200-400	200-1000	(2-3/8 PAC PIN UP)	Coiled tubing

MEDUSA® VS DUAL SECTION MILL

TOOL OD (inches)	Length (inches)	Minimum Casing OD (inches)	Maximum Casing OD (inches)	Milling Direction up/down/both	Under Ream or Casing Scrub Max OD (inches)	Suggested Operating Parameters			Connection top	Deployed on
						weight/pull - Klbs	Rotation - RPM	Torque - ft/lbs		
5.000	116.44	6-5/8	13-3/8	Both	16.375	1.5 - 2.5	100-130	500 -2000	(3-1/2 IF BOX UP)	Drill pipe
5.500	113.50	7	13-3/8	Both	17.25	3-5	100-130	500 -2000	(3-1/2 IF BOX UP)	Drill pipe
7.750	149.44	9-5/8	16	Both	21.25	3-5	100-130	500 -3000	(4-1/2 IF BOX UP)	Drill pipe
11.500	117.50	13-3/8	30	Both	31.50	3-5	100-130	500 -3000	(6-5/8" REG BOX UP)	Drill pipe

MEDUSA® CSM SECTION MILL

TOOL OD (inches)	Length (inches)	Minimum Casing OD (inches)	Maximum Casing OD (inches)	Milling Direction up/down/both	Under Ream or Casing Scrub Max OD (inches)	Suggested Operating Parameters			Connection top	Deployed on
						weight/pull - Klbs	Rotation - RPM	Torque - ft/lbs		
5.000	116.44	6-5/8	7	Down	21.25	1.5 - 2.5	100-130	500 -2000	(3-1/2 IF BOX UP)	Drill pipe
5.500	105.00	7	9-5/8	Down	21.25	3-5	100-130	500 -2500	(3-1/2 IF BOX UP)	Drill pipe
7.750	145.00	8-5/8	11-3/4	Down	21.25	3-5	100-130	500 -3000	(4-1/2 IF BOX UP)	Drill pipe

MEDUSA® SCR CUTTER

TOOL OD (inches)	Length (inches)	Minimum Casing OD (inches)	Maximum Casing OD (inches)	Milling Direction up/down/both	Under Ream or Casing Scrub Max OD (inches)	Suggested Operating Parameters			Connection top	Deployed on
						weight/pull - Klbs	Rotation - RPM	Torque - ft/lbs		
5.875	104.00	6 5/8	30	Both	66.00	3-5	100-130	500 -2000	(3-1/2 IF BOX UP)	Drill pipe
6.375	104.00	7 5/8	30	Both	66.00	3-5	100-130	500 -2000	(3-1/2 IF BOX UP)	Drill pipe
8.375	138.00	9-5/8	36	Both	80.00	3-5	100-130	500 -3000	(4-1/2 IF BOX UP)	Drill pipe
11.750	139.00	13-3/8	72 +	Both	108.00	3-5	100-130	500 -2000	(6-5/8" REG BOX UP)	Drill pipe