

THE DOCTORS



PRODUCT GUIDE
Doctor Manufacturing co.,ltd

[illegible][illegible]

THE DOCTORS



PRODUCT GUIDE
Doctor Manufacturing co.,ltd

INDEX

OUTLINE ————— P3

OUTLINE HISTORY. MAIN CUSTOMERS

DOCTOR SYSTEM ————— P5

(DOCTOR SYSEM FOR PAPER-MAKING)

1、ABC DOCTOR

2、ABCD DOUBLE DOCTOR

3、WIRE SUCTION COUCH DOCTOR

4、REMOVING DOCTOR

REMOVING DOCTOR WITH DOUBLE DOCTOR BLADE

REMOVING DOCTOR FOR BACKING ROLL

REMOVING DOCTOR FOR AFTER DRYER

REMOVING DOCTOR FOR TEFLON ROLL

5、SELF-CLEANING DOCTORS

6、SPECIAL DOCTORS

WET CRAPE DOCTOR

DOUBLE DOCTOR FOR#1DRYER

HOPPING DOCTOR

DOCTOR FOR CANVAS STRETCH ROLL

DOCTOR FOR SUCTION COCH ROLL

CANVAS CLEANING DOCTOR

THROUGH-PAPER DRYER DOCTOR

SMOOTH PRESS DOCTOR

GATE-ROLL EDGE WIPER

FELT TOUCH DOCTOR

BAR-CODE SIZER

FLOW CLEANING DOCTOR FOR BACKING ROLL

TROUGH-PAPER DOCTOR FOR SIZE PRESS

WIRE & FELT MIST-PREVENTING DOCTOR

KF-Y DOCTOR FOR YANKEE CRAPING

WATER DOCTOR

(DOCTOR SYSTEM FOR STEEL INDUSTRY)

AIR TUBE DOCTOR (ABC)

WIDELY OPEN DOCTOR

NOTABLY RETRACTABLEDOCTOR

DOCTOR WITH EDGE CLEANING BLADE

DOUBLE DOCTOR

SCANNING DOCTOR

DOCTOR WITH HOOD

DOCTOR FOR FURNACE

BLADE HOLDER ————— P20

(AIR TUBE TYPE)

ABC TYPE

ABC-CTYPE

ABC -MINI TYPE

ABC -G TYPE

ABC -MINI-GTYPE

ABC --MHI TYPE

ABC-YTYPE

(SOLID TYPE)

KF TYPE

KF -MINI TYPE

KF-Y TYPE

CM TYPE

CM-H TYPE

FC TYPE

DOCTOR BLADE ————— P25

PARTS GUIDE ————— P33

DOCTOR NET WORK ————— P35

MAIN EQUIPMENT IN JAPAN FACTORY — P37



BUSINESS PHIL OSOPHY

HIGH-QUALITY DOCTOR WITH LOW PRICE MADE BY MOST ITTELLIGENT PERSONNEL

TECHNOCRACY

WITH LIMITED RESOURCES, ADVANCED TECHNIQUE AND ENTHUSIASTIC

ATTITUDE, WE PURSUE RICH AND COLORFUL FUTURE BY DOCTOR.



OUTLINE

Outline

Company's name	Doctor Manufacturing Co., Ltd.
Office	996-6 Okabe-cho, Shida-gun, Shizuoka-ken, Japan 421-1121 TEL: 81-54-667-3578 FAX: 81-54-667-3489
Assembling Factory	996-6 Okabe, Okabe-cho, Shida-gun, Shizuoka-ken, Japan 421-1121 TEL: 81-54-667-3577 FAX: 81-54-667-3587
Capital	20 million Yen
President Manager	SHUNICHI HAGITA TORU YAMANASHI
Employee	Design department (Sales) 10 employees Design department & welding department 15 employees Precision casting & welding department 20 employees Assembling & packaging department 25 employees Blade department 15 employees
Business scope	Making, selling and repairing of paper machines Making, selling and repairing of machinery parts & precision casting parts Designing, manufacturing & selling of machinery parts & precision casting parts

History

1984.10	Doctor Manufacturing plant was established
1985.01	New factory was built in Nakayoshida, Shizuoka-shi
1986.01	New factory was built in Nagasaki, Shizuoka-shi
1987.05	Doctor Manufacturing Co., Ltd. was set up by investing 5 million Yen Company & factory was moved to 760-1 Utsutani, Okabe-cho, Shida-gun, Shizuoka, Japan
1987.06	Sold doctor blade developed by France UDD
1988.04	Introduced precision casting facilities
1989.05	Developed & sold doctors for steel industry
1989.12	Had sold 1000 doctors
1990.10	Blade factory was built
1998.10	Tokyo office was built
1999.10	20 million Yen was added
2000.06	Manufacturing factory was built
2001.05	Shikoku office was set up
2002.03	Sendai office was set up
2002.07	Welding factory was built and precision factory was moved
2002.08	Kyoushou office was set up & 10,000 doctors had been sold
2003.03	Osaka office was built
2004.09	Business department was moved Assembling & packaging department was moved Planar factory was built
2004.10	500t press machine was put into use
2005.01	Boring machine was put into use
2005.02	Nagoya office was set up
2006.01	Fuji office was set up



Main Customers

[Paper-making Industry(Domestic)]

赤平製紙(株)/秋田住友ペーク(株)/旭化成(株)/阿波製紙(株)/イズミコーポレーション(株)/五十川製紙(株)/いわき大王製紙(株)/上山製紙(株)/宇摩製紙(株)/愛媛製紙(株)/エフ・シー・シー/エリエールペーパーテック(株)/エリエールホームペーパー(株)/遠州製紙(株)/王子板紙(株)/王子キノクロス(株)/王子製紙(株)/王子タック(株)/王子特殊紙(株)/王子ネピア(株)/大分製紙(株)/大阪製紙(株)/大高製紙(株)/大津板紙(株)/大宮製紙(株)/岡山製紙/加賀製紙(株)/春日製紙工業(株)/川端製紙(株)/紀州製紙(株)/北上製紙(株)/北上ハイテクペーパー(株)/九州板紙(株)/久保田製紙(株)/グンゼ(株)/京王製紙(株)/興亜工業(株)/(株)興人/興陽製紙(株)/五條製紙(株)/佐賀板紙(株)/三幸(株)/三光製紙工業(株)/讃州製紙(株)/(株)三仁製紙所/三善製紙(株)/山陽板紙工業(株)/山陽製紙(株)/シノムラ化学工業(株)/周南紙業(株)/住友ペークライト(株)/駿興製紙(株)/大王製紙(株)/大興製紙(株)/大成製紙(株)/大ニ製紙(株)/大日製紙(株)/大豊製紙(株)/太洋紙業(株)/大和板紙(株)/高尾製紙(株)/高砂製紙(株)/立山製紙(株)/玉川製紙(株)/中越パルプ(株)/中央製紙(株)/天間特殊製紙(株)/東栄製紙工業(株)/東海加工紙(株)/東海パルプ(株)/東京製紙(株)/東洋ファイバー/東洋濾紙(株)/(株)キワ/特種製紙(株)/独立行政法人国立印刷局/(株)巴川製紙所/富山製紙(株)/豊田紡織(株)/(株)中村製紙所/長良製紙(株)/名古屋パルプ(株)/那須製紙(株)/日清紡績(株)/ニトク(株)/日本板紙加工(株)/ニッポン高度紙工業(株)/日本製紙(株)/日本製紙クレシア(株)/日本大昭和板紙関東(株)/日本大昭和板紙東北(株)/日本大昭和板紙西日本(株)/日本大昭和板紙吉永(株)/(株)能代製紙/ハリマペーパーテック(株)/兵庫製紙(株)/廣瀬製紙(株)/福山製紙(株)/富士共和製紙(株)/富士写真フィルム(株)/二村化学(株)/北越製紙(株)/北越パッケージ(株)/北陸森紙業(株)/(株)牧谷局紙/マスコ製紙(株)/丸井製紙(株)/丸王製紙(株)/丸三製紙(株)/丸住製紙(株)/丸富製紙(株)/丸菱ペーパーテック(株)/三島製紙(株)/三菱製紙(株)/明治製紙(株)/(株)山恭製紙所/山崎製紙(株)/リンテック(株)/レンゴー(株)

[Paper-making Industry(Overseas)]

ADVANCE AGRO PUBLIC CO.,LTD
ADVANCE PAPER CO.,LTD
AJIN PAPER CO.,LTD
ASIA PAPER MFG.CO.,LTD
ASIA KRAFT PAPER CO.,LTD
CHENMING SPECIAL PAPER
CHIBI CHENMING PAPER CO.,LTD
CHO IL PAPER MFG.CO.,LTD
CHUN IL PAPER MFG.CO.,LTD
DAE LIM PAPER CO.,LTD
DAE WANG PAPER MFG.CO.,LTD
DAE YANG PAPER MFG.CO.,LTD
DAEHAN PAPER CO.,LTD
DONG IL PAPER MFG.CO.,LTD
DONG YANG PAPER MFG.CO.,LTD
DONGGUAN JIANHUI PAPER CO.,LTD
DONGGUAN LAND DRAGON PAPER
DREAM PATECH CO.,LTD
FUYANG JINTAI PAPER CO.,LTD

GOLD EAST PAPER (JIANGSU)
GOLD HONGYE PAPER (SUZHOU)
GOLD HUASHENG PAPER (SUZHOU)
GUANGZHOU PAPER
HANBURGER SPREMBERG
HANGZHOU BANQIAO PAPER
HANSOL PAPER CO.,LTD
Howe Sound P.P LTD
HUA FENG PAPER
HUN KUK PAPER MFG.CO.,LTD
INDAH KIAT PERAWANG MILL
INDONESIA P.T ASPEX PAPER
INDONESIA. ESA KERTAS
JIAXING BUYUN PAPER CO.,LTD
JIN DA XING PAPER CO.,LTD
JINHUA YONGSHUN PAPER CO.,LTD
JINLIAN PAPER
JINZHOU PAPER INDUSTRY CO.,LTD
KAIFENG PAPER CO.,LTD
KAILI PAPER JOINT STOCK CO.,LTD
KOREA HANSOL PATECH CO.,LTD
KOREA ONSAN HAN KUK PAPER
KOREA OSAN HONG WAN PAPER
KOREA PAPER MFG.CO.,LTD
KOREA YOUNGIN KUK IL PAPER
KUK-IL PAPER MFG. CO.,LTD
KYE SUNG PAPER CO.,LTD
KYUNG SAN PAPER CO.,LTD
LEE&MAN PAPER MFG.CO.,LTD
LONGYAN PAPER MFG COLTD. FUJIAN
MIRAE PAPER CO.,LTD
MONALISA CO.,LTD
NAMHAN PAPER CO.,LTD
NANNING PHOENIX PULP&PAPER CO
NINBO ZHONGHUA PAPER
NINE DRAGONS PAPER INDUSTRIES
NORSKE SKOG CO.,LTD
OSAN KOREA EXPORT PACKAGING
P.T.PINDO DELI PULP&PAPER MILLS
PAPER COREA INC.
QIHE PAPERBOARD CO.,LTD
RT.FAJAR SURYA WISESA TBK.
SAM SUNG PAPER CO.,LTD
SAM WHA PAPER CO.,LTD
SAM YANG PAPER MFG.CO.,LTD
SAMIL PAPER CO.,LTD
SANXING PAPER INDUSTRY CO.,LTD
SERIM PAPER MFG.CO.,LTD
SHAN DONG SUN PAPER JOINTSTOCK
SHAN YING PAPER CO.,LTD
SHANDONG BOHUI INDUSTRIAL
SHANDONG CHENMINGPAPERHOLDINGS
SHANDONG HENGLIAN ART PAPER
SHANDONG HUAJIN GROUP GENERAL
SHANDONG HUATAI PAPER
SHANDONG HUAZHONG PAPER
SHANDONG RIZHAO SSYMB PULP
SHANDONG TALIN PAPER
SHANGHAI AI PAPER MAKING NACGU
SHANGHAI CHEN MING PAPER MFG.
SHANGHAI ORIENT CHAMPION PAPER

SHANGHAI XINLUN PAPER
SHAOWU ZHONGZHU PULP&PAPER CO.
SHIHO PAPER MFG.CO.,LTD
SHIN DAE YANG PAPER CO.,LTD
SHINHO PAPER MFG.CO.,LTD
SHOUGUANG LIBEN PAPER MAKING
SHOXING XINMIN PAPER
SHSHUI JINYI PAPER CO.,LTD
STORA ENSO SUZHOU PAPER.,LTD
TAE-A INDUSTRIAL CO.
TAIWAN YUEN FOONG YU PAPER MFG
TANN LONGYON
THAI CAIN PAPER
TIEN LONG PAPER MFG.CO.,LTD
UNION PAPER CORPORATION
WEIFANGHENGLIAN-MEILINDAILY PAPER
WOLSAN CO.,LTD
WUHAN CHENMING HANYANG PAPER
WUXI LONG CHEN PAPER CO.,LTD
YANTAI FIRST PAPER
YANZHOU TIANYI PAPER CO.,LTD
YOUNG POONG PAPER
YUEN FOONG YU PAPER ENTERPRISE
ZHEJIANG HENGDA PAPER CO.,LTD
ZHEJIANG JINGXING NIPPON PAPER
ZHEJIANG MINFENG ROBERT PAPER
ZHEJIANG SANXING PAPER
ZHEJIANG XIANHE SPECIAL PAPER
ZHEJIANG YONGTAI PAPER
ZHONG SHAN RENGO HUNGHINGPAPER
ZHONGSHAN YONGFA PAPER IND CO.
ZHONGSHAN ZHONGFA PAPER IND CO
ZHUHAI HONGTA RENHENG PAPER CO.,LTD.
[STEEL AND NONMETAL INDUSTRY (DOMESTIC)]
(株)石橋精鋼/井上金属工業(株)/岩手ニッケン(株)/上野製業(株)/科研製業(株)/片山特殊工業(株)/川鉄鋼板(株)/金豊工業(株)/(株)神戸製鋼所/小松精錬エンジニアリング(株)/サン・アルミニウム工業(株)/山九(株)/三宝伸銅工業(株)/JFE建材(株)/JFE鋼板(株)/JFEスチール(株)/昭和エンジニアリング(株)/昭和電工(株)/神鋼アルコアルミ(株)/新神戸電機(株)/新日鐵化学(株)/新日本鉄製鐵(株)/スカイアルミニウム(株)/(株)スチールセンター/住軽アルミ箔(株)/住友金属建材(株)/住友金属工業(株)/住友金属鉱山伸銅(株)/住友軽金属(株)/大建工業(株)/大同特殊鋼(株)/東海ゴム工業(株)/東洋鋼板(株)/東洋精箔(株)/DOWAメタル(株)/中山化成(株)/(株)中山製鋼所/ニコーアルミ工業(株)/(株)日鉦マテリアルズ/日新製鋼(株)/日新総合建材(株)/日鉄鋼板(株)/日本板硝子(株)/日本金属工業(株)/日本軽金属(株)/(株)NEOMAXマテリアル/日立化成工業(株)/日立機械エンジニアリング(株)/日立金属(株)/日立電線(株)/藤倉ゴム工業(株)/富士メタルプリンティング(株)/古河アルミ(株)/古河金属無錫(株)/古河スカイ(株)/古河電工(株)/北海鋼機(株)/(株)淀川製鋼所/マイクロハード(株)/三菱アルミニウム(株)/三菱樹脂(株)/ヤマハメタニクス(株)/ユニオンタイヤコード(株)/吉野石膏(株)

[Steel and nonmetal industry (Overseas)]

Aluminum Company of Malaysia
ANSHIN STEEL SERVICE CENTRE

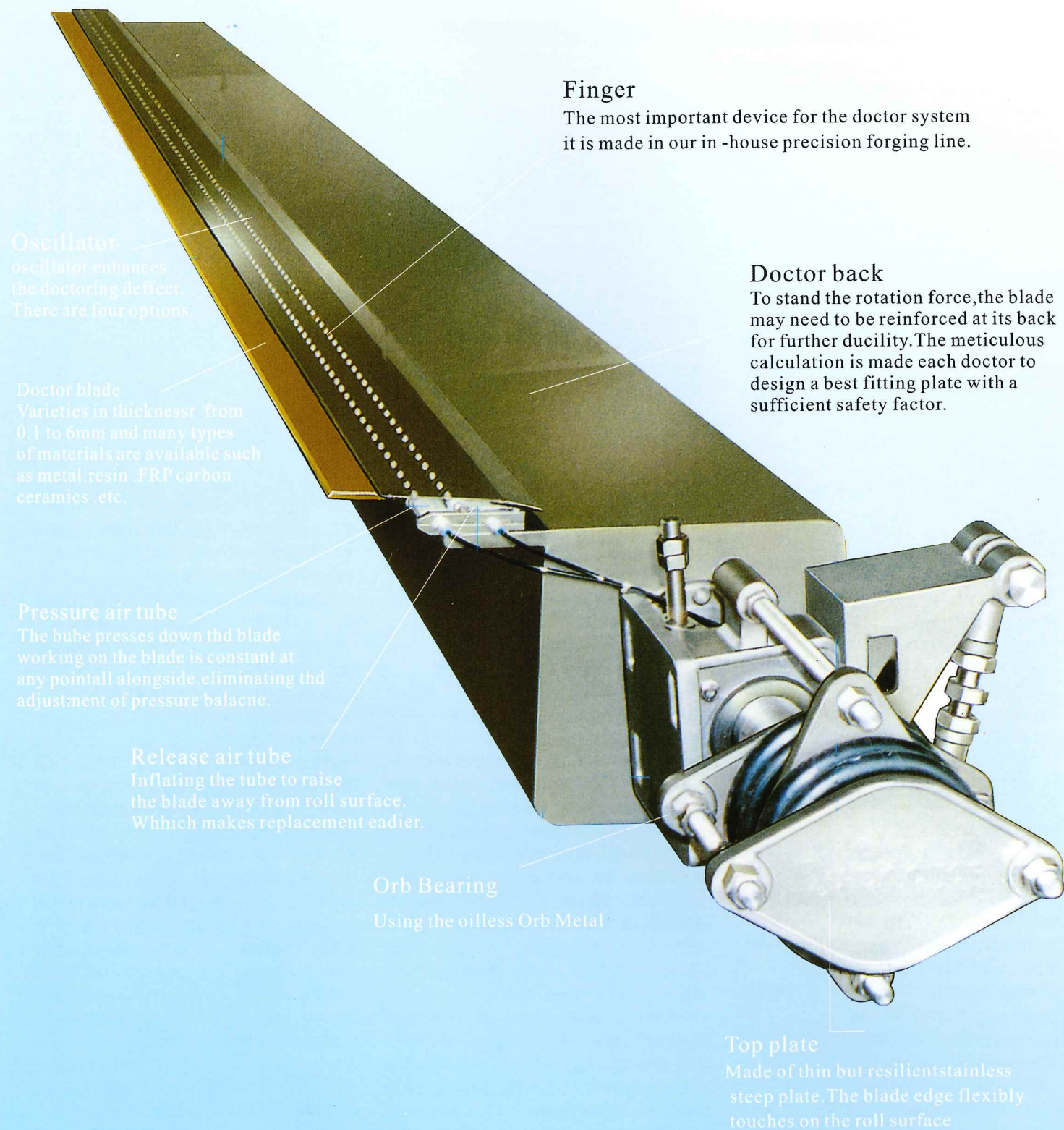
BAO STEEL GROUP CO.
BAOSHAN IRON & STEEL
BNG STEEL CO.,LTD
C.S.ALUMINIUM CORP.
CHINA STEEL CORPORATION
GROUP STEEL CORPORATION(M) SDN.BH
GUANGQI TOYOTSU STEEL CO.,LTD
本溪鋼鉄有限公司
LOTTE ALUMINUM CO.,LTD
MEGASTEEL SDN.BHD.
NHAC ALUMINIUM
ORNASTEEL ENTERPRISE CORP.SDN.
POHANGIRON&STEEL CO.,LTD
POHANG IRON&STEEL KWANGYANG
POONG NAM MACHINERY CO.,LTD
SIAM UNITED STEEL
SISCO
YUSCO

[Car industry(Domestic)]

アイシン精機(株)/アラコ(株)/関東自動車工業(株)/セントラル自動車(株)/ダイハツ建設(株)/ダイハツ工業(株)/ダイハツ車体(株)/東邦シートフレーム(株)/トヨタ自動車(株)/トヨタ自動車九州(株)/(株)豊田自動織機/トヨタ車体(株)/日産自動車(株)/日産車体(株)/日野自動車(株)/本田技研工業(株)/水島鋼板工業(株)/三菱自動車(株)

[CAR INDUSTRY(OVERSEAS)]

HYUNDAI HEAVY INDUSTRIES CO.,
HYUNDAI STEEL CO.
PAPER-MAKING MAKER(DOMESTIC)
(株)アイ・エチ・アイフォイトペーパーテクノロジー/(株)アイサク/旭マシナリー(株)/石川島産業機械(株)/(株)エイチアンドエフ/川崎エンジニアリング(株)/川崎重工工業(株)/川之江造機(株)/(株)小林製作所/(株)斉藤鉄工所/鈴木製技(株)/スターライト工業(株)/スチールプラントック(株)/住友重機械テクノフォート(株)/ソノルカエンジニアリング(株)/(株)大昌鉄工所/大平工業(株)/(株)田島鐵工所/中外炉工業(株)/永井鉄工(株)/(株)ナカサク/勿来十條紙工(株)/日本電炉(株)/(株)長谷川鉄工所/(株)日立製作所/(株)堀河製作所/(株)丸十鉄工所/ミツオキ(株)/三菱重工業(株)/三菱日立製鉄機械(株)/宮田鉄工(株)/(株)ムサシノキカイ/メッツォペーパージャパン(株)/(株)八木鉄工所/ヤマウチ(株)/(株)山川機械製作所/由利ロール機械(株)/(株)横山製作所/(株)淀川芙蓉/ロザイ工業(株)
PAPER-MAKING MAKER(OVERSEAS)
GOLDSTAR PAPER TECH.LTD.
HAN KOOK MACHINERY CO.
JOONGANG MACHINERY IND.CO.,LTD
MITSUBISHI HEAVY INDUSTRIES
SAMYANG HEAVY MACHINERY CO.,LTD
VALMET-XIAN PAPER MACHINERY
VOITH
YUE-LI MACHINERY CO.,LTD



Finger
The most important device for the doctor system it is made in our in-house precision forging line.

Doctor back
To stand the rotation force, the blade may need to be reinforced at its back for further ductility. The meticulous calculation is made each doctor to design a best fitting plate with a sufficient safety factor.

Oscillator
oscillator enhances the doctoring effect. There are four options.

Doctor blade
Varieties in thickness from 0.1 to 6mm and many types of materials are available such as metal, resin, FRP, carbon, ceramics, etc.

Pressure air tube
The tube presses down the blade working on the blade is constant at any point all alongside, eliminating the adjustment of pressure balance.

Release air tube
Inflating the tube to raise the blade away from roll surface. Which makes replacement easier.

Orb Bearing
Using the oilless Orb Metal

Top plate
Made of thin but resilient stainless steel plate. The blade edge flexibly touches on the roll surface

DOCTOR SYSTEM

ABC DOCTOR [AIR BALANCE CONTROL DOCTOR]

Features

Uniform nip pressure all alongside the edge, which is realized by use of an air tube to give pressure on roll surface, preventing scratches

Linearity of pressure curve is promised by use of a Special pressure adjusting device (please refer to the graph)

A wide variety of blades allowing the thickness Range from 0.1 to 6mm and an easy blade replacement Helps to save labor at the machine site.

Doctor system for paper-making

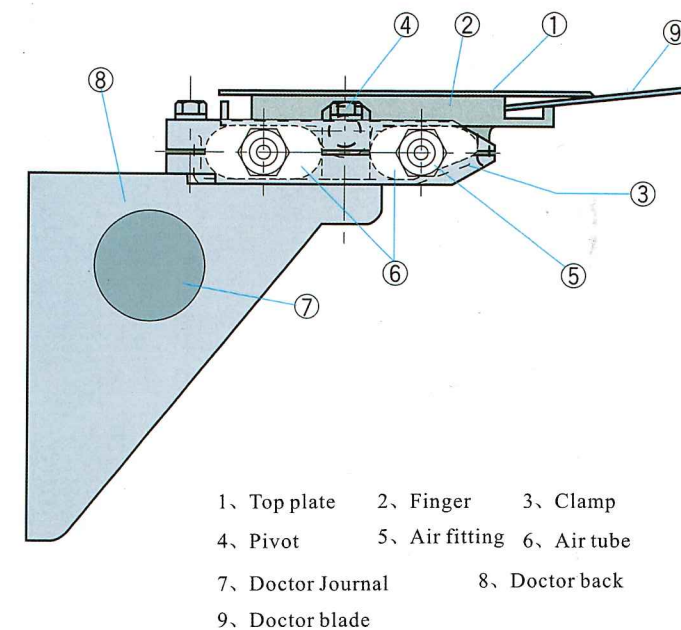
Largest domestic market share:

Using an air tube, ABC doctor securely presses and releases the doctor blade which has been solving various problems posed in paper machine and water machine operations, and highly evaluated by the users.

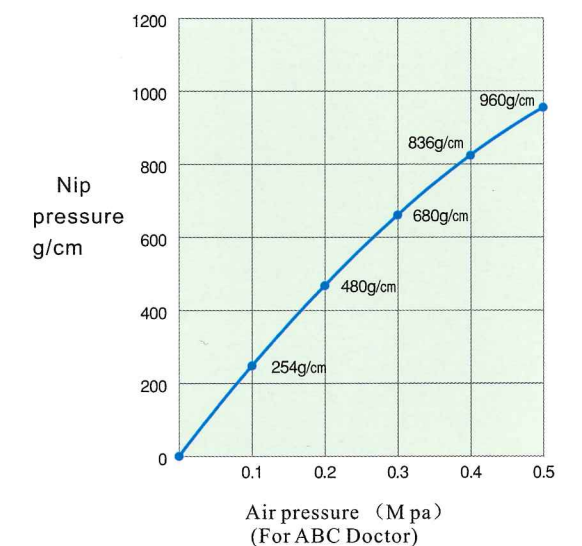
Compatible doctoring effect:

There are three elements which determine the performance of doctor, such as nip pressure, blade material type and blade edge angle. A best combination of the elements draw out a best doctoring effect and solves the future problems in roll cleaning which will come up while paper machines are developing.

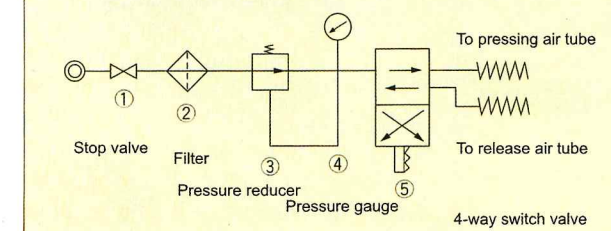
Structure and major parts



Nip pressure



Air circuit



Air tube

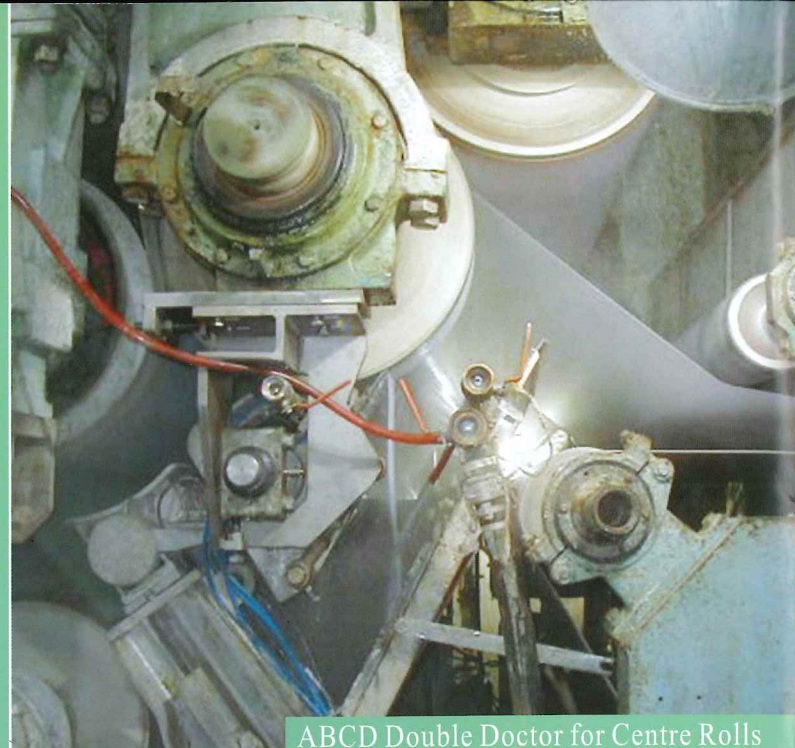


Double Doctor System

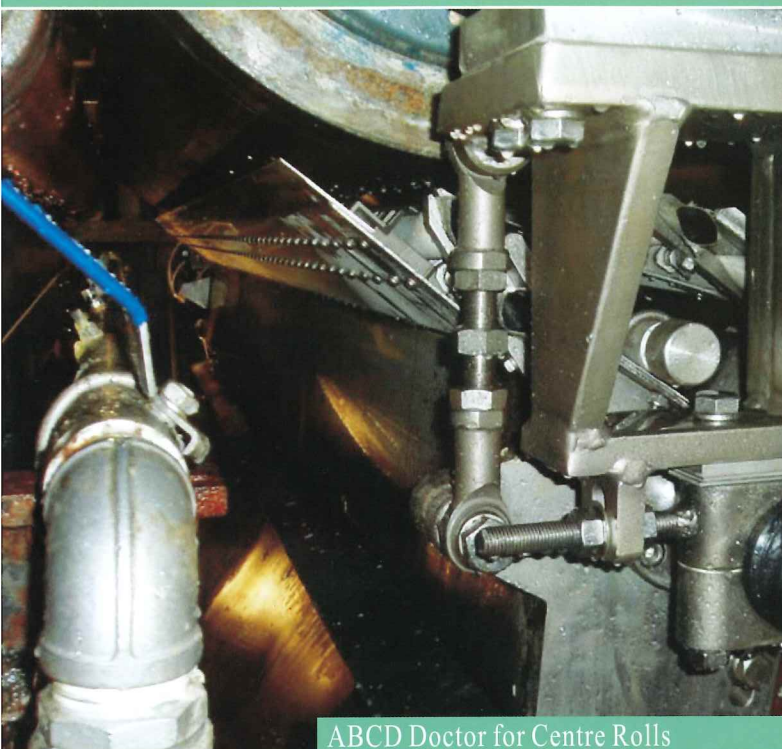
ABCD Doctor (Air Balance Control Doctor)
Improve productivity, make high-quality products

Features

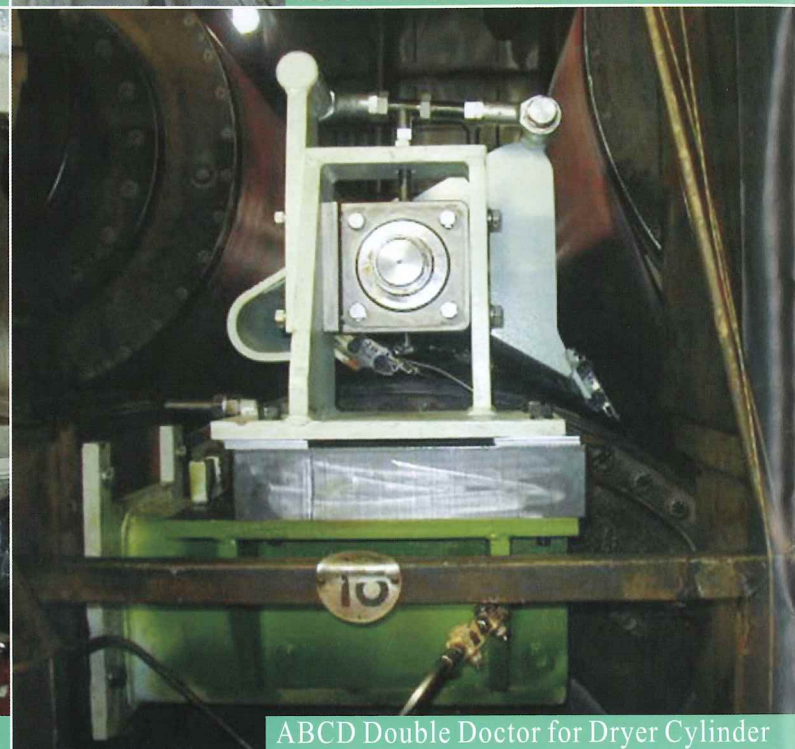
- A cleaning effect is achieved in the application to press center rolls and 4P top rolls .It can remove the dirt that sticks to the back of the doctor which was hard removed in the past
- There are ABCD double doctor and ABC+CM double doctor. And we' ll design the doctor according to your application. For dryer cylinders and surface treatment rolls which foreign objects often sticks to,this double doctor works well .The second blade plays an important part and it gives more luster to the rolls.



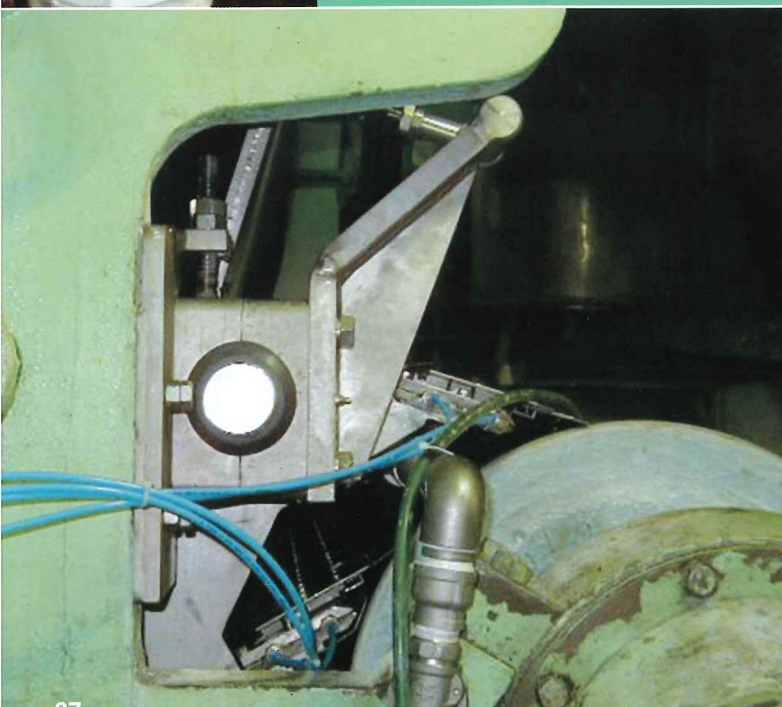
ABCD Double Doctor for Centre Rolls



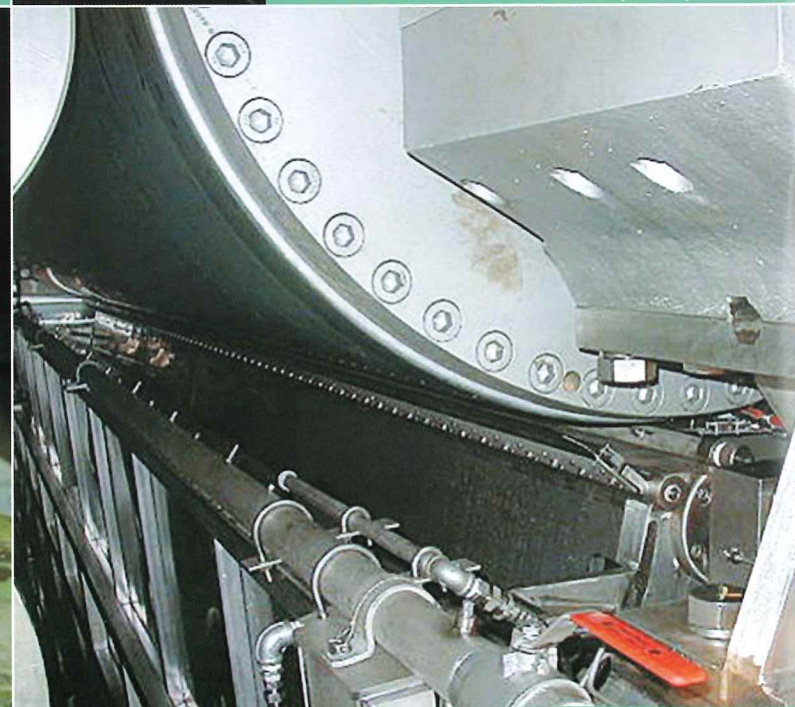
ABCD Doctor for Centre Rolls



ABCD Double Doctor for Dryer Cylinder



ABCD Doctor for Press Roll



CM Doctor for Centre Roll

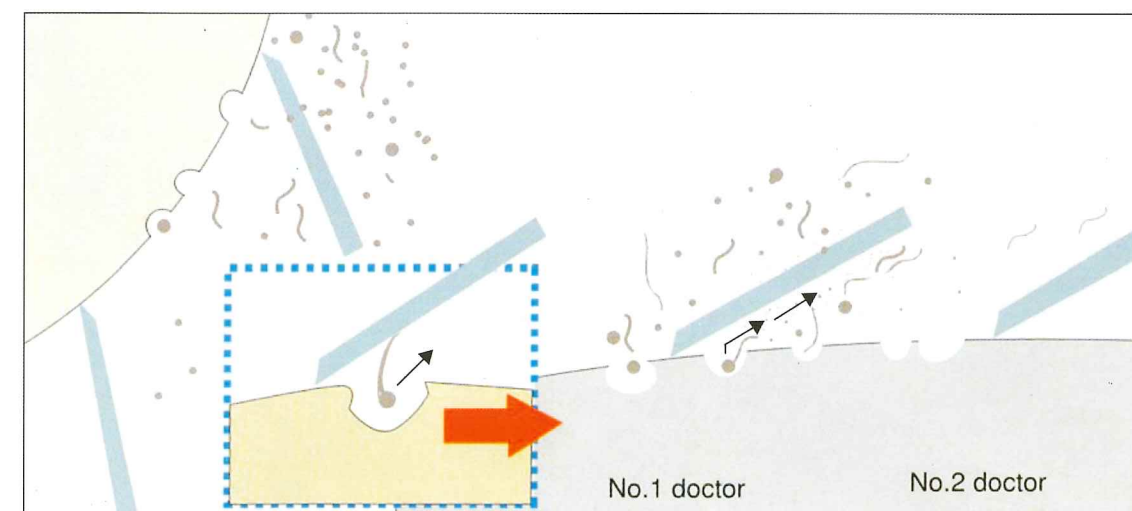
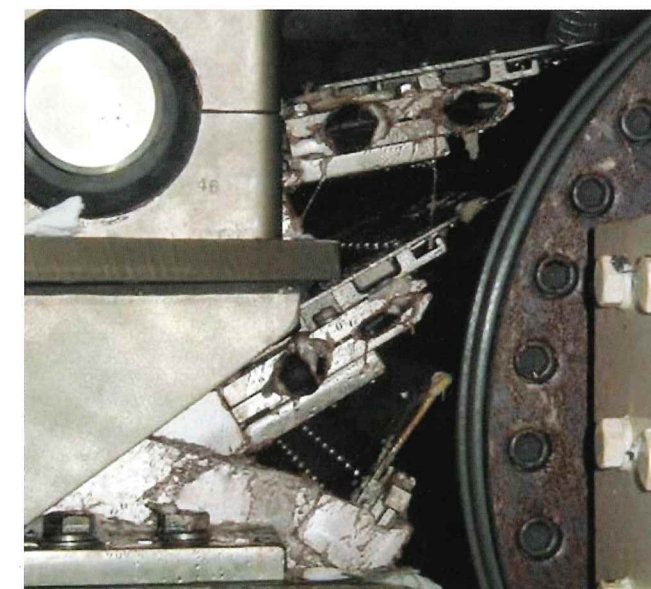
Principle of the double doctor and the purpose

The ABC doctor uses two ABC doctors in series. The main purpose of doctors is to remove water ,shaving dust and foreign matter sticking on rolls. Microscopically there are many small holes or bumps on the surface of rolls .Similarly minute nicks are made on the edge of doctor blade after use .Small foreign materials may go through such nicks. The materials remained on rolls are taken to paper ,or some are built up behind the blade and they are spun off when built up to a size,causing problems such as paper mutilation, serious contamination. The problem will be more serious in the use of a stone roll as the main roll .Another interesting phenomenon is taking place behind such dryer FC rolls,chromium rolls and WC flame coated rolls. Since they are used under high nip pressure,the air pressure behind the blade becomes negative and foreign matter build up there .The double doctor is contrived to solve such problems. By positioning the second blade behind the first one, shavings or materials passing through or built up at the first blade are captured by the second . Thus,more effective doctoring performance is secured.

Adoption of a more rigid doctor back

For the use to support the double blade holders,the backup plates need to be designed with sufficient rigidity because of excess reaction from rolls. To offer the products which can be used with ease by customers, we are paying a meticulous attention to the design standards ,as well.

Doctor system for paper-making

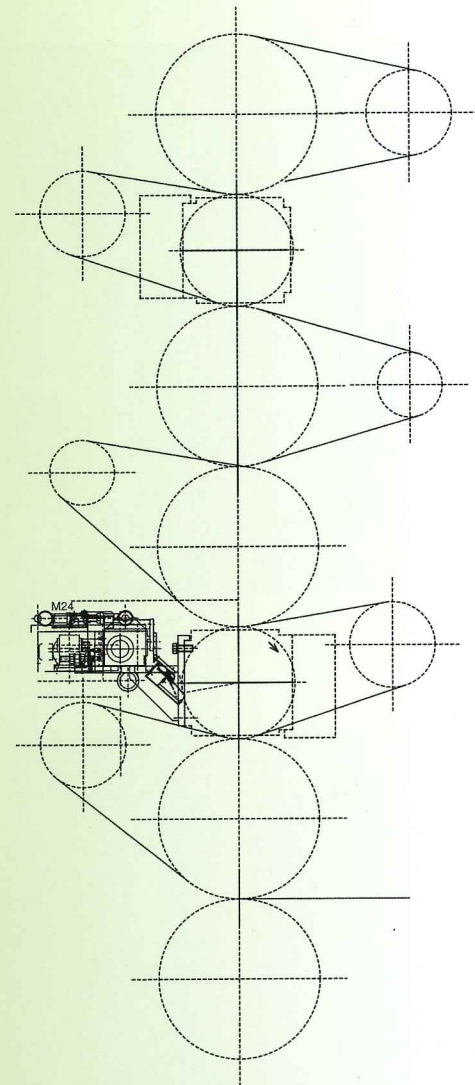
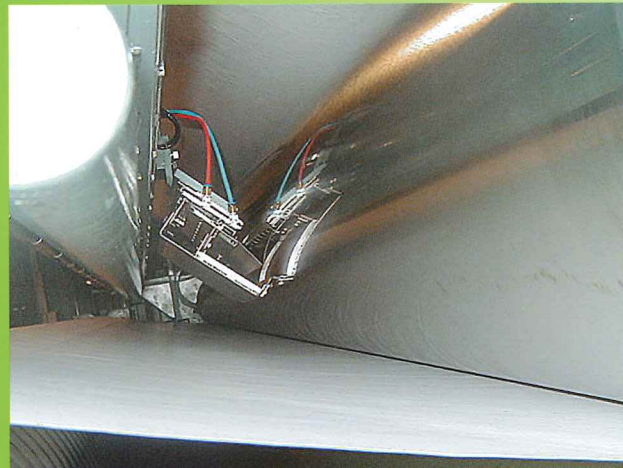


Removing Doctor

Clean the rolls while not damaging them and increase the gloss of the paper sheet.

Features

- With the linked detector, the blade can move fast to the place where dirt is, and immediately remove it in high efficiency.
- Usually it moves leftward and rightward with the whole holders to suppress accumulation of dirt effectively.
- When dirt is detected on roll surface, the operator can press the button to remove it while keeping an eye on it.



Removing Doctor with Double Head

Moving faster, suiting for dirtier rolls.

Features

To improve the effect of cleaning and make the roll move faster, double doctor head can be used on the rolls where there is much sticky dirt.

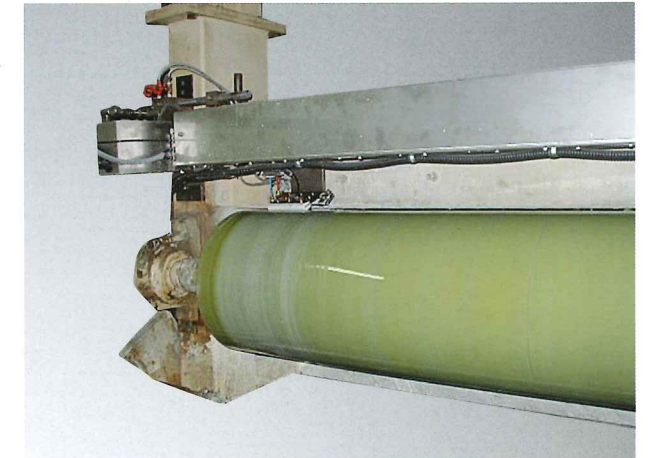


Removing Doctor for Backing Roll

Less abrasion of the backing roll, having a good effect of cleaning.

Features

- The operator can press the switch to start cleaning when detecting the dirt on the rolls.
- To remove dirt on the rolls, the doctor nip should be 300-500N/m, and less damage to the rolls.
- Do not need to use the whole blade, so less damage to the rolls and easy to change the blades and maintain.

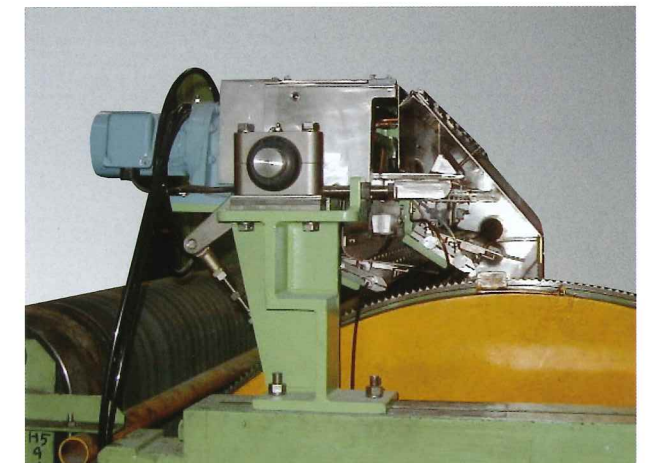


Removing Doctor for After -Dryer

Few dangerous operation in after -dryer via using removing doctor.

Features

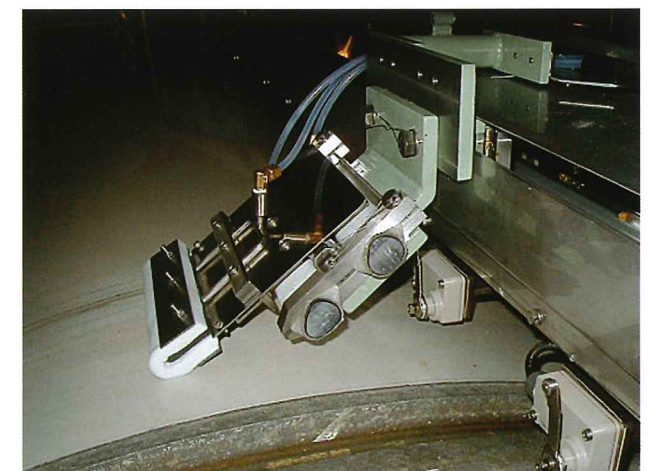
- Automatic operation instead of human for the dangerous operations.
- Touching the whole doctor, removing dirt automatically and avoiding hard dirt on the surface of the rolls.
- The doctor nip which can remove hard dirt on the rolls is 600-800N/m and will not damage the rolls. Also it can be used with the whole doctor.



Cleaning Doctor for Teflon Rolls

Features

- Using resin blades can easily scrape the teflon layer off, so felt is used on the doctor head.
- To increase lubrication, moisture can be added to the doctor head.
- The doctor is moving on the rolls, thus keeping the roll surface clean.



Self-cleaning Doctor

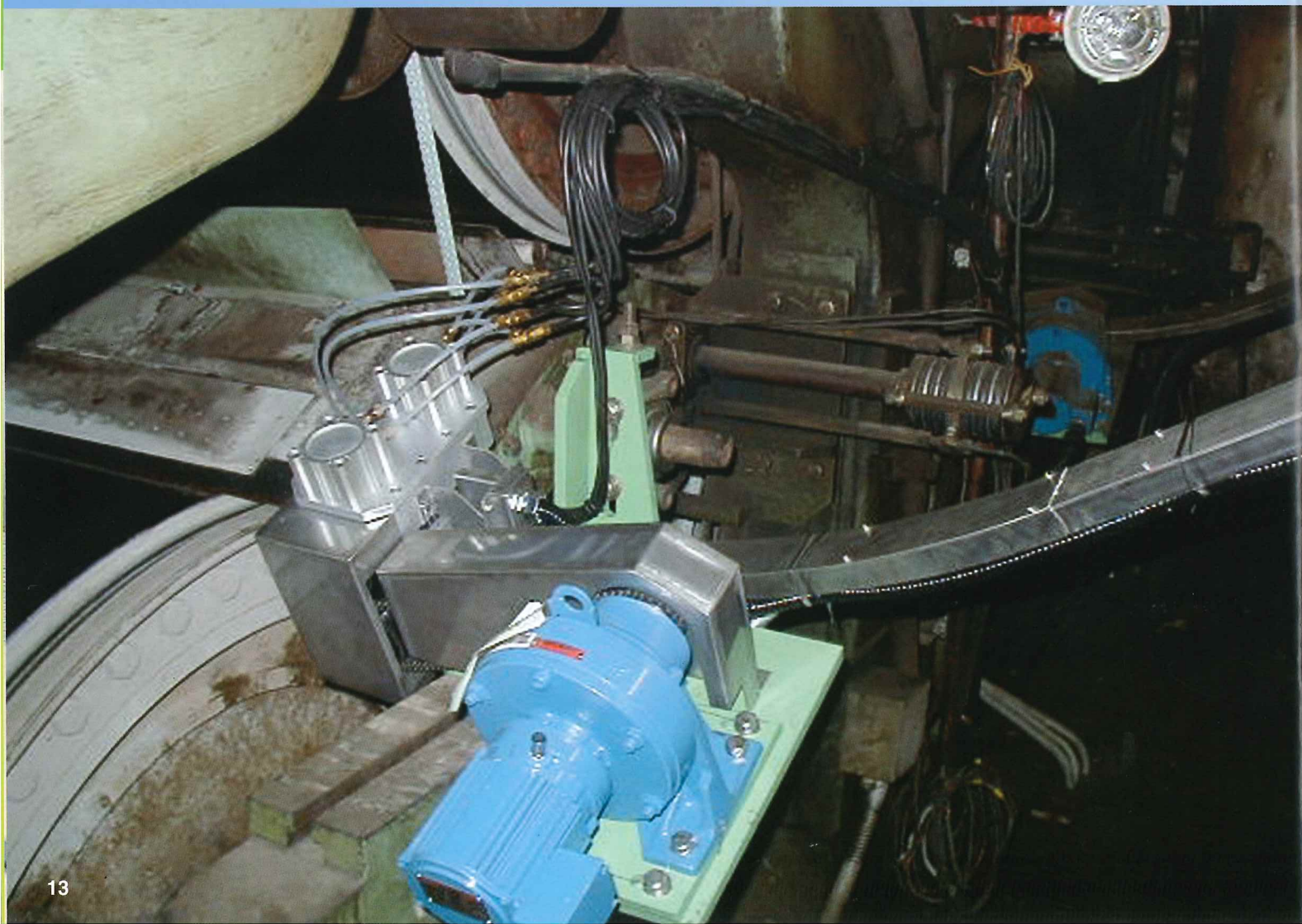
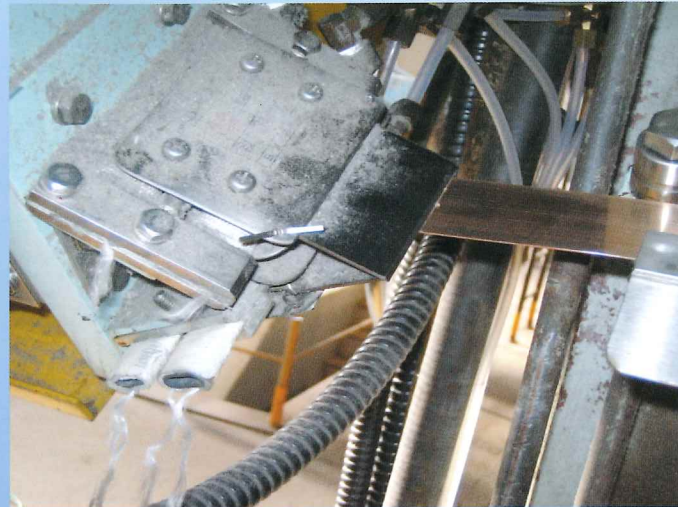
The paper powder and sticky dirt at the back of doctor blades can be removed by self- cleaning doctor effectively.

Features

- Doctor blades move along the rolls back and forth.
- The problem of paper -breaking because of sticky dirt at the back of doctor blades can be solved.
- Avoid such dangerous operation as clean doctor blades when paper machine is running
- Can be installed on the original doctor system.



Operation Board

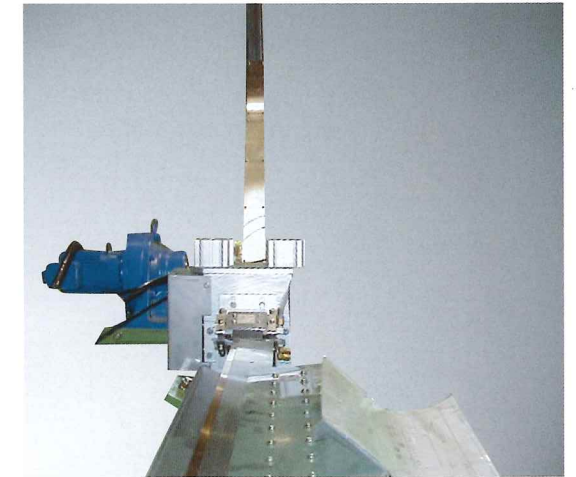


Doctor system for paper-making

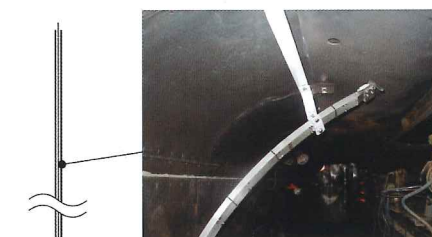
Self-cleaning Doctor with Scabbard -shaped Type

Features

- Doctor blades are installed in the scabbard so the operation is safe .
- The scabbard can be installed flexibly according to the site space.
- The moving length of doctor blades can be checked by sensor and there is limit switch.
- The service life of doctor blades can be extended from 2 to 3 months.



For Entire Doctor



End of Scabbard



End of Scabbard

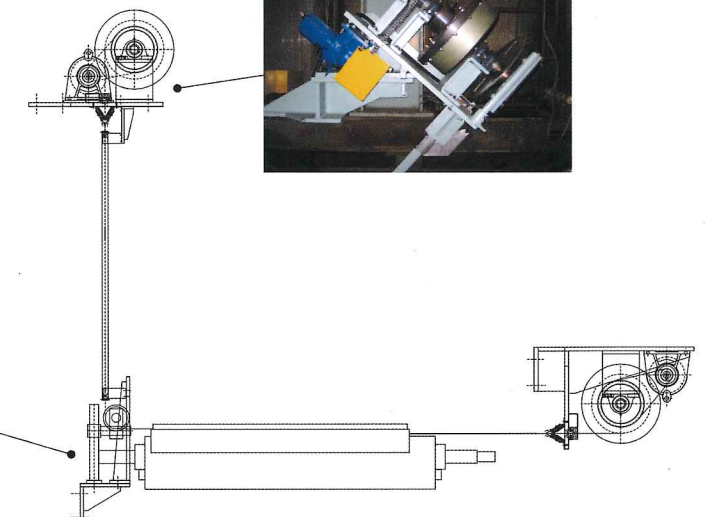


Roll Surface Condition

Self-cleaning Doctor with Rolled Type

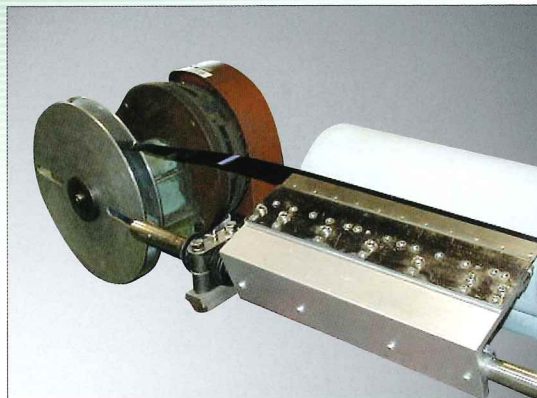
Features

- Suit for rolls with long surface.
- It's easy to change the doctor blades for they are rolled.
- It can be installed even in small space.
- The service life of doctor blades is longer.



DOCTOR SYSTEM

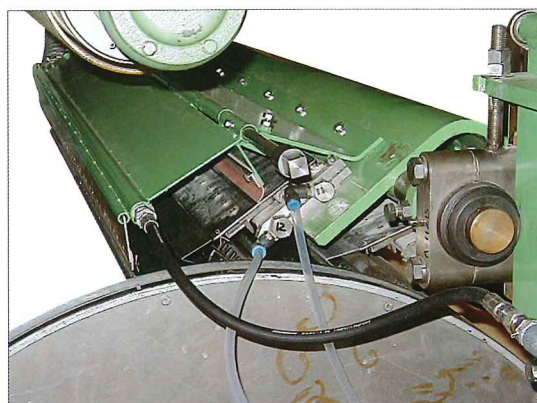
Doctor system for paper-making



Endless wet crape doctor blade

Features

- 1、 Change of blade due to fast wear can be done less frequently.
- 2、 Endless blade is delivered in operation ,safe and energy-saving.
- 3、 The roll blade can be sharpened for re-use.



Double-doctor blade for #1 dryers

The system used for the tar accumulated in group 1 drying section.

Features

- 1、 Removal of tar and other dirt minimizes failure in paper supply and improves operation in drying section.
- 2、 No dirt on paper minimizes quality problem.
- 3、 #2 blade made of carbon fiber; a film formed on roll surface , and gloss shone,flatness of paper improved.



Hopping doctor blade

Beat the dried coating with the Hopping doctor to remove dirt on rolls

Features

- 1、 When the coating on the roll is dry,beat it with the blade to knock it off,do not supply air.
- 2、 The force exercised in beating is very small so don't worry about damage to the roll.
- 3、 Basically use a cleaning blade, but all types of blades can be used.
- 4、 Move the adjusting screw to adjust the spring,and thus adjust blade linear pressure.



Canvas stretch roll doctor blade

The method adopted against compensation for the dirt on canvas

Features

- 1、 To be used together with canvas cleaning device to improve cleaning efficiency.
- 2、 Use of very flexible type ABC blade holder and supply of set air pressure make the blade contact the roller automatically ,and reduce trouble in adjustment.
- 3、 The dirt removed falls into the receiving tank on the holder ,and is discharged through the recovery system.

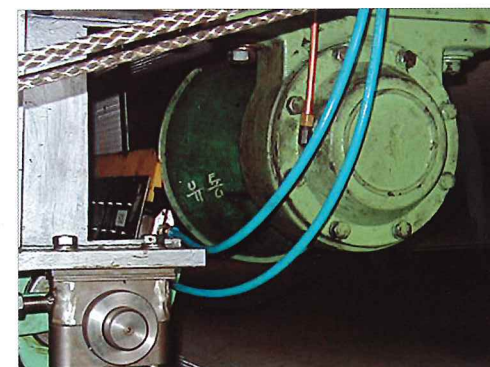


Suction pick-up roll doctor blade

Suppressing block of pick up rolls and preventing the low efficiency of suction
Suction pick-up roll doctor

Features

- 1、 It prevents block of rolls and maintains high suction.
- 2、 With needle water spray on roll surface,scrapping efficiency is greatly improved.
- 3、 The water sprayed from needle nozzles is thoroughly removed to prevent failure due to spray water.



Canvas cleaning doctor blade

Low price and can remove the dirt on canvas surface
Canvas cleaning doctor

Features

- 1、 Can remove adhesive asphalt,paper powder and other dirt on the surface of canvas in a proper way.
- 2、 Washing blade edge with spray water can make the scraping effect beter. The water tank installed on the doctor body will take the water back.
- 3、 Using special soft blade and low line pressure causes little damage to canvas.

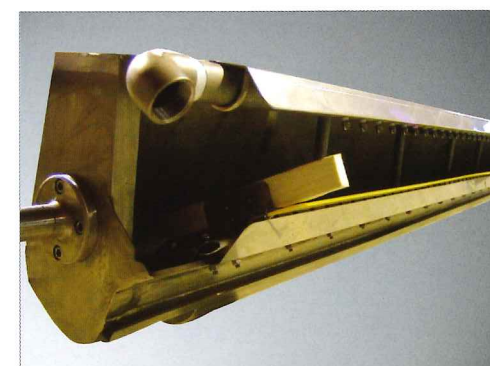


Through paper dryer doctor blade

Is there any where that through-paper is difficult?
Trough-paper dryer doctor

Features

- 1、 Time is largely saved when leading paper ,The resources of human and materials are also saved.
- 2、 In drying section,to prevent paper from being rolled up when led.two air nozzles are used to blow out guide air,thus ensuring paper pass through in the direction of leader.
- 3、 The mechanization of paper leader operation reduces the risk of operators and ensures safety.

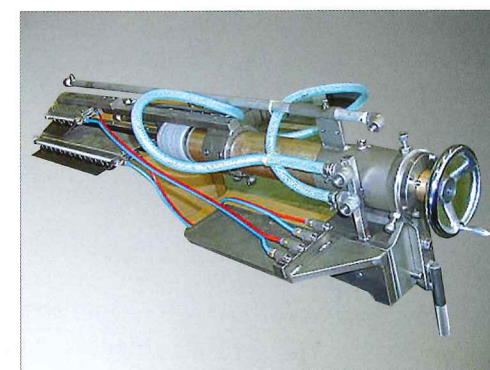


Smoother doctor blade

Wholly new struture for washing blades with spray water
Smoother doctor

Features

- 1、 The coating solution on blade edge can be quickly removed by spray water. This greatly reduces maintenance of rolls and cleaning of blades.
- 2、 The water used to wash blade edge is collected by recovery mechainism.
- 3、 Besides,to keep off splash of water ,a plastic fender is at the lower part to prevent occurrence of failure.

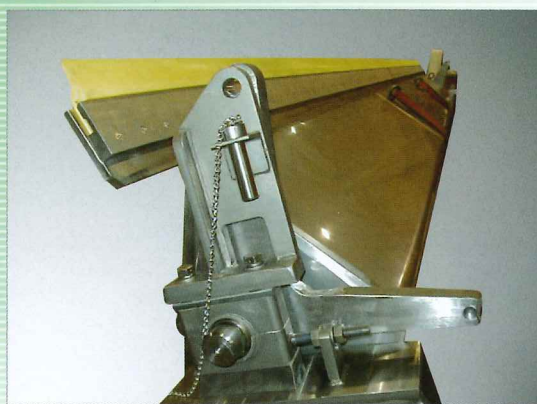


Gate-roll edge wiper

Both-sides cleaning doctor developed for sizing slightly
Gate-roll edge wiper

Features

- 1、 By using ABC holder,not only the line pressure can be adjusted, but the ends of rolls can be cleaned.
- 2、 The effect of removing dirt is good by using thin resin blade or P blade,even highly adhesive liquid can also be removed thoroughly.
- 3、 Washing with spray water improves scraping efficiency and extends the service life of blades.



Felt touch doctor

It can prevent broken paper being back to the press part, which may cause damage to the felt and press rolls, when the paper is drawn from press part to dryer part.

Features

- Because the doctor touches the felt ,polyethene blade is used .
- To discharge the broken paper out of felt part effectively, the upper part of doctor body is inclined and conduct mirror manu facturing.
- The doctor body is designed higher than others' to avoid the impact of the broken paper.

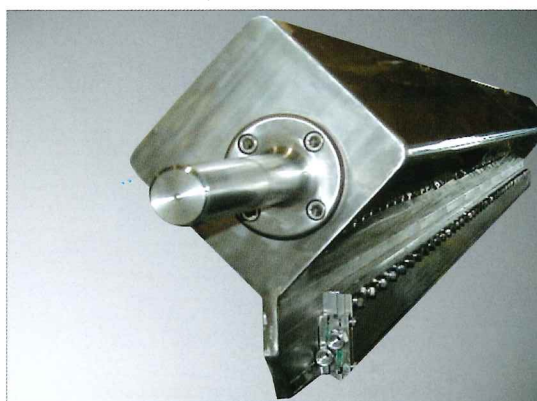


Bar-code sizer

Cleaning doctor used at both sides of coating rolls

Features

- With ABC-G blade holder and installing blades along the axial direction of the roll ,no damage can be made to the surface of soft roll and coating slution can be removed in a proper way.
- Washing with spray water improves scraping efficiency and extends the service life of doctor blades.



Flow cleaning doctor blade for backing roll

The best doctor for removing dirt on the surface of baking roll
Cleaning doctor for backing roll

Features

- Cleaning coating roll with blades saves maintenace of roll on site and simplifies operation.
- The air pipe for blade change and the air pipe for tightening, both are inside the holder, improves the stability of blades. The seal of water storage is good and it indeed scrapes well.

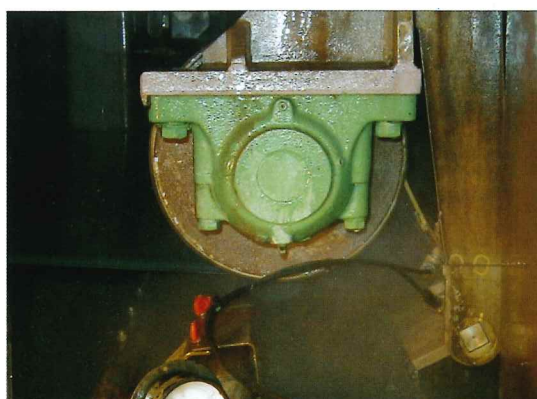


Through-paper doctor blade for size press

Effectively help through-paper for size press

Features

- Easy for through the paper sheet for installing the through-paper doctor blade.
- Compact design for the blade and can install in small place.
- Only install it in handle side and can save cost.

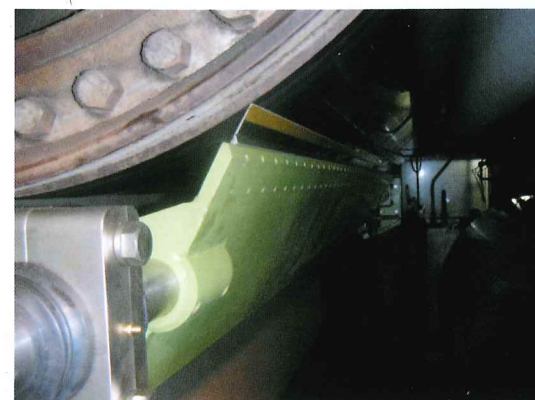


Wire & felt mist .prerenting doctor blade

Can effectively remove the water on wire & felt
Wire &felt mist preventing doctor

Features

- Prevent damaging wire and felt by using ABC -G holder and poly ethene blade.
- The flexibility of air tube holder makes the doctor and felt and wire touch balance.
- Install the blade along the axial direction of the roll .The service life of blades is long and it' s easy to change blades.



KF-Y doctor blade for single side enamel paper Yankee dryer

Special doctor system for one-side -gloss paper
KF-Y doctor for Yankee dryer

Features

- Better performance for using both NO.1 and NO.2 blades.
- Blade back up by SK material and doctor nip pressure can be 1000-500N/m. So an oxidized film can be formed on the surface and increase quality of paper.

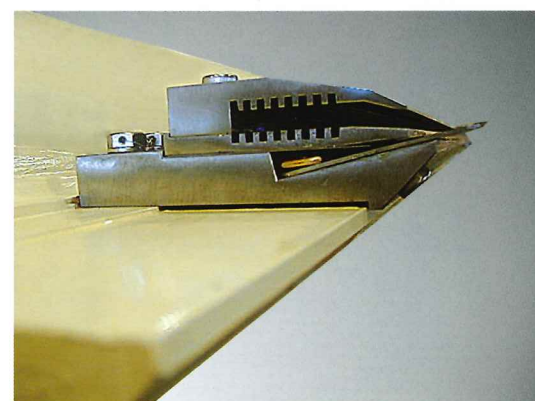


ABC-Y air-tube doctor blade for Yankee craping

The best choice for Yankee craping
ABC -Y air-tube doctor

Features

- By using air tube blade holder, the whole blade can touch the rolls softly. Do not need to adjust the blade edge .And the holder is stable for the high stainless ,so has stable craping.
- The line pressure which craping need is 1500-3500N/m.
- The blade is made of SK and can be used in the width from 125mm to 80mm . The service life is long.



CM-H doctor blade for Yankee craping

High-speed Yankee craping
CM-H doctor

Features

- The holder with sealed oil pipe,so the whole blade can touch the rolls softly.So it' s possible for high level craping.
- The blade is made of SK and can be used in the width from 125mm to 80mm . The service life is long. It' s possible for super pressure from 3000 to 6000N/m.



Water doctor blade

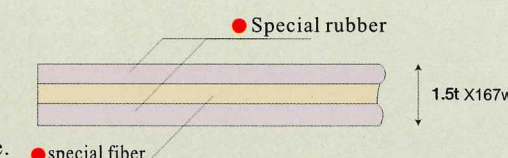
Highly efficient water doctor for high-speed paper Maching

Features

- With the expansion of the capacity of the mian body, circulating amount of coating supply and discharge can also be increased .This stablizes the level of coating supply tank.
- The guard board which is made of special material can reduce the wear produced by rotating rolls and prevent the liquid from leaking at the back of the guard board whose service life is long .
- There is water nozzle that can adjust the quantity of water.

Apron sheet

The part touching with the most important rolls is made of special material .
Its leakproofness is good, it' s anti-chemical and anti-abrasion .
It can also resist high temperature as high as 160℃.Easy to change.



DOCTOR SYSTEM

Doctor system for steel Industry



Pneumatic tubing doctor blade

Pneumatic tubing doctor (ABC)

Features

- Hottest sale
- Pressure can be applied with the operation panel.
- Line pressure can be adjusted automatically.



Widely open doctor blade

Widely open doctor

Features

- The blade holder can be widely open by air cylinder so it's easy to change and maintain rolls.
- Change of blades is easy, too.



Notably retractable doctor blade

Notably retractable doctor

Features

- Can be installed on rolls that is uneasy to maintain.
- Change of rolls is not affected



Doctor blade with edge cleaning blade

Doctor with edge cleaning blade

Features

- Can remove the dirt remaining on blade edge frequently.
- The service life of blades is long.



Double-doctor blade

Double doctor

Features

- The effect of double doctor is good.
- It prevents dirt from falling from the back of the blade.



Scanning doctor blade

Scanning doctor

Features

- Can remove dirt thoroughly.
- Not liable to damage roll surface.
- Suit for glossed rolls.
- Can prevent dirt from being accumulated at the back of doctor blade.
- Can clean the face and back of blade edge.
- Operation and stop can be adjusted with timer.

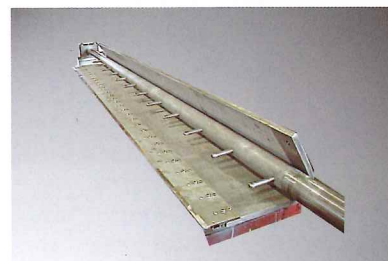


Doctor blade with hood

Doctor with hood

Features

- With the hood, dirt on blade edge face can be removed by air or water.
- On the side of DS dust suction and water drainage mechanisms are set up to exhaust air, water or oil.



Doctor blade for furnace roll

Doctor for furnace roll

Features

- The doctor body is made of super heat-resisting material
- Can remove the sediment on roll surface that was hard removed before.

BLADE HOLDER

AIR-TUBE&SOLID

BLADE HOLDER

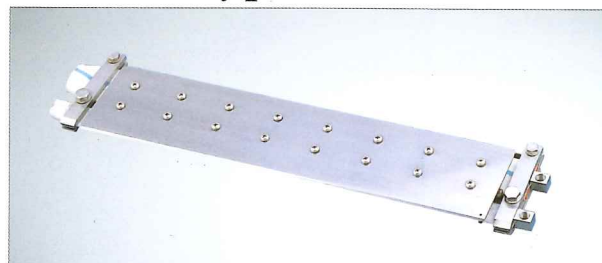
Air Tube Type

Various air tube blade holders developed for different usages

With many years of efforts, we have developed many kinds of blade holders, from which we choose suitable ones according to the conditions of rolls and different working environment and recommend them to our customers. We can solve any problems with blade holders, and please contact us if you are in need of our help.

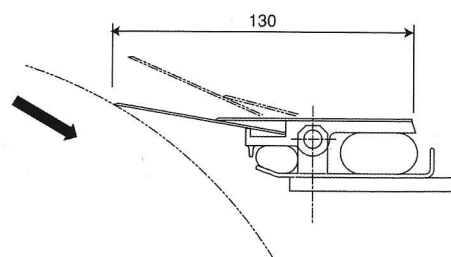
ABC-C Type

ABC -C blade holders designed for limited space
ABC -C Type



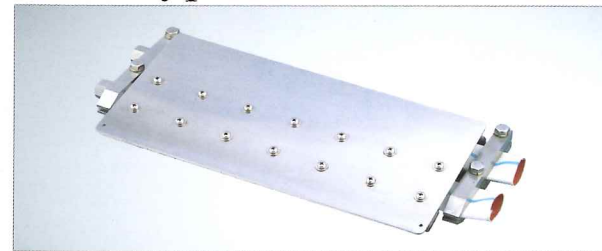
Features

- Its size is only half of ABC type and used where space is limited.
- With the same performance as ABC's, it can be used for rolls with small diameters.



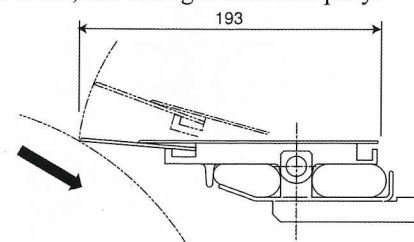
ABC Type

ABC blade holders that have the biggest market share
ABC Type



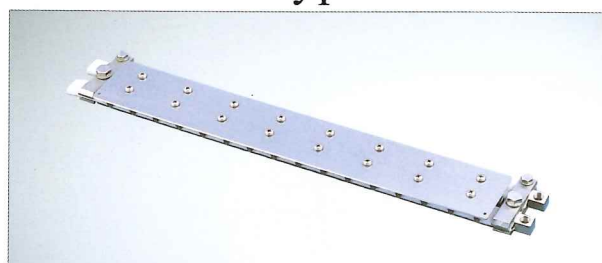
Features

- The air nip of blade is adjusted with the adjustment of the pressure of air in and out of the tube.
- The scope of blade's thickness is wide and it's convenient to change the blades.
- Three major factors, which are blade angle, air nip and material, are brought into full play.



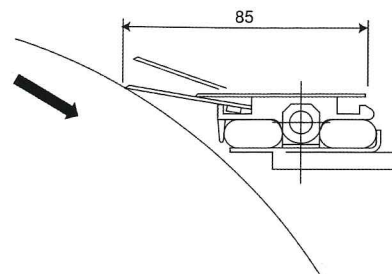
ABC-MINI Type

ABC-MINI blade holders with the smallest size
ABC-MINI Type



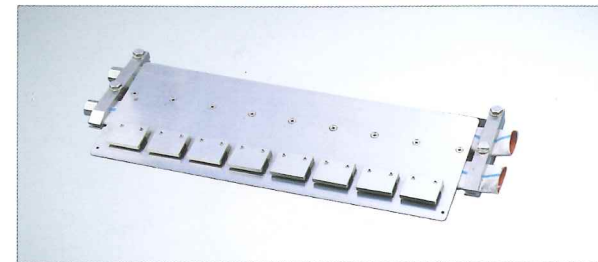
Features

- Can be installed in very small space.
- Designed for low line pressure, especially suit for steel industry.



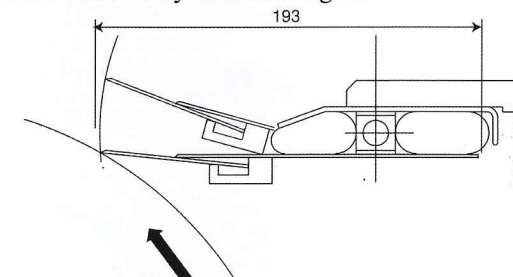
ABC-G Type

For small diameter printing rolls and soft rolls
ABC-G Type



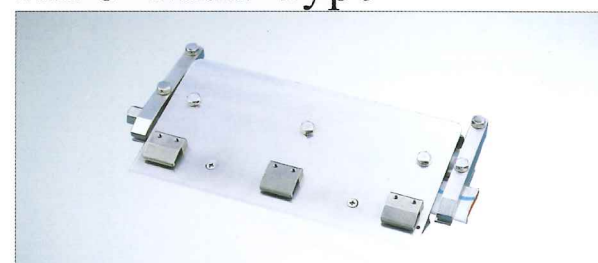
Features

- Remove surplus ink from small diameter printing rolls.
- The blade edge surface is in good contact with roll surface along the axial direction of a roll so that roll surface is not easy to be damaged.



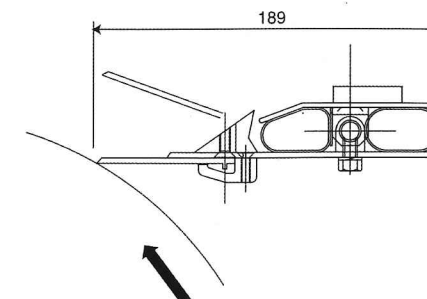
ABC-MHI Type

Blade holders developed with MHI
ABC -MHI Type



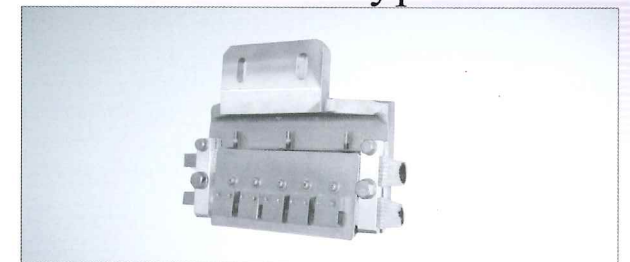
Features

- It's a kind of special blade holder designed for boot press part and has a good effect.
- Can remove the oil on the felt roll in press part.



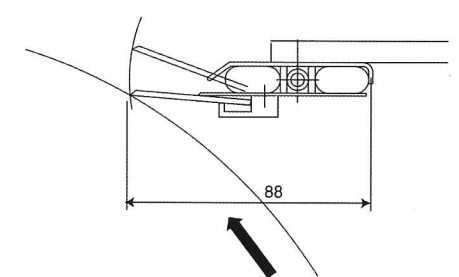
ABC-MINI-G Type

For small diameter printing rolls and soft rolls
ABC -MINI-G Type



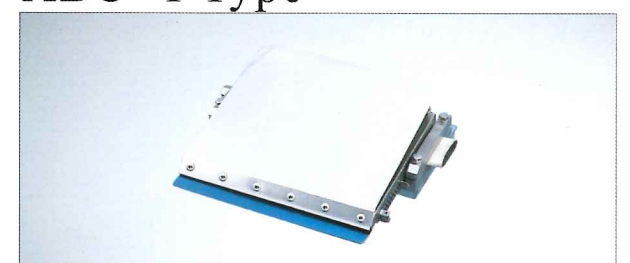
Features

- Can be installed in limited space where ABC -G can't.
- A miniature of ABC-G type, it has same performance as ABC -G's.



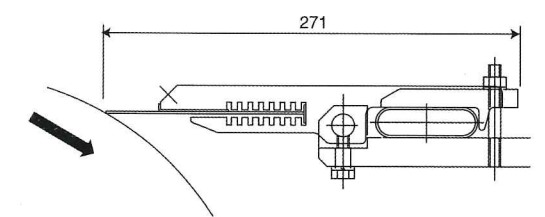
ABC-Y Type

Air tube blade holder specially for Yankee dryer
ABC -Y Type



Features

- Can reach the high line pressure of 1500-4000N/m, which yankee dryer requires.
- Thanks to the ladder structure, even if the blade wears fast, within the scope of 125mm to 280mm, it can still be used; both effective and economic.



BLADE HOLDER

Solid Type

Solid blade holders with fine contact and great power

When there is no air source, solid blade holders and blade holders whose doctor nip are adjusted by air cylinder can be used. They have super-high pressure which the air tube blade holders cannot compare with.

Anyway, solid holders have broad applications.

KF Type

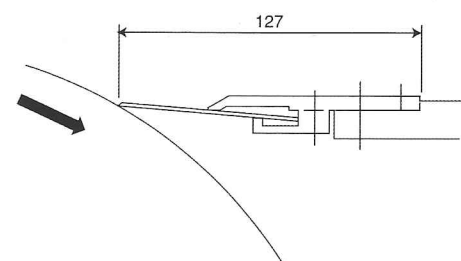
Blade holder with a long history

KF Type



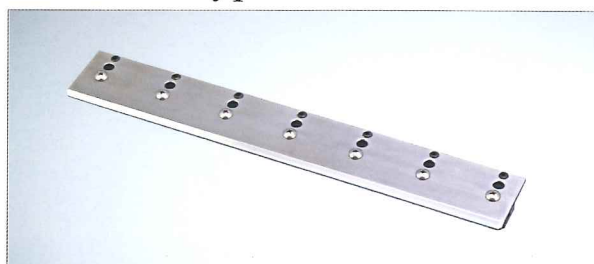
Features

- The pressure is applied basically by its own weight, and the separation is done with a hand lever.



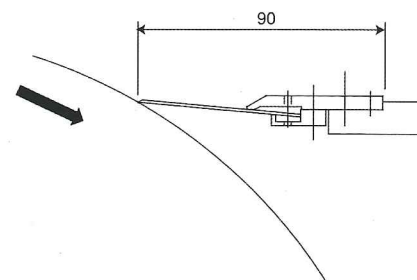
KF-MINI Type

More simplified KF
KF-MINI Type



Features

- A miniature of KF type, it makes installation in limited space easier.
- The space-saving design especially suit for small-diameter rolls in steel industry.



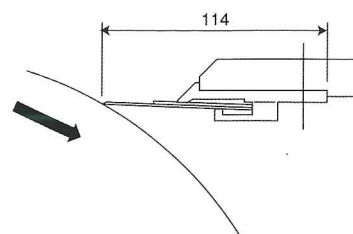
KF-Y Type

High line pressure holder suiting for rolls in yankee dryer
KF-Y Type



Features

- Most suitable for rolls in a yankee drier and best effect can be achieved.
- Compared with pressure applied with an air cylinder, its line pressure can reach 1000-1500N/m.



CM Type

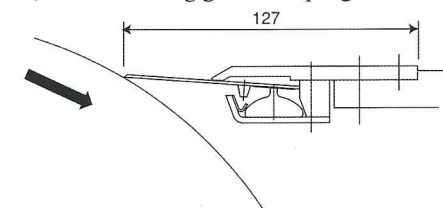
CM Type with fine contact and great power

CM Type



Features

- With a PTFE fiber pipe filled with special oil in the holder, flexibility can be transmitted to the roll along the blade edge surface.
- Fine adjustment is made against unevenness on roll surface. Its sensitivity is better than ABC type and most suitable for #1 doctor.
- Even if blade line pressure is below 50N/m, the flexibility of oil pipe can be transmitted to the roll along blade edge surface, thus achieving good scraping effect.



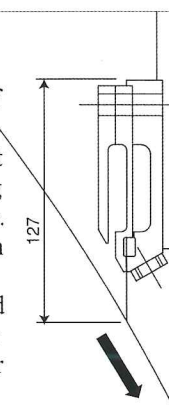
FC Type

Blade holder suiting for removing coating solution from backing rolls
FC Type



Features

- Along the rotary direction of the soft coating roll, blade is in good contact with the roll, and will not damage roll surface. Surplus coating solution can be removed in a proper way.
- Washed with water, dirt falling down can be easily collected.
- Not only the washing water is sealed in blade edge face, but set up of the air cleaning mechanism prevents water leak effectively.



CM-H Type

Newest holder with high line pressure suiting for rolls in yankee dryer
CM-H Type



Features

- Super-high line pressure of 4000-6000N/m can be achieved.
- With the oil tube inside the blade holder, the heat emitted from a yankee drying roll will make the holder change with the change of exterior appearance.



DOCTOR BLADE

Various Doctor Blade

1、 Resin blade

Epo-glass ,X-2,P-blade, Polyethylene,
Special blade for suction couch roll,
Teflon blade ,MC 500E,Carbon 20,
Carbon 50,Carbon 100,N-carbon,
T-carbon, poly-carbon,Clean blade,
Super fine blade

2、 Doctor blade that concentrates the most advanced technology(1)

Various carbon blade

3、 Doctor blade that concentrates the most advanced technology(2)

Clean blade

4、 Metal blade

Stainless,SK -5,Super blade ,K-500,
phosphor bronze,UH 230S,S blade,
Back up plate ,Cartridge holder

5、 Doctor blade that concentrates the most advanced technology(3)

K-500

Good doctoring effect begins from the choice of blades
Every year more than ten kinds of materials are available
in the market.

Our blades are all produced by automatic system,thus the
delivery time is shortened and the cost is lowered.

For the choice of blades,you can consult us at any time.

Recycling system for used blades

Based on the principles of ISO9001,our
company provide the service of recycling
blades used by our customers at any time
Customers are often wondering how to
dispose of used blades.

They can use this recycling system ,When
we deliver the blades to them,we also
send them a carton,in which there are
the blades.

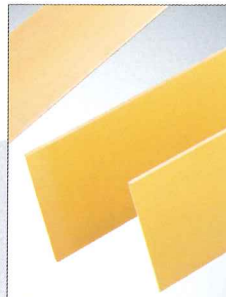
They can make use of the carton to put
the used blades into it.Then the used
blades can be sent back to our factory
and get reground. For example ,the
new blade with 76mm width can
be ground into 70mm width blade for
reuse,so both the cost and raw ma-
terial are decreased.Besides,the blades
which were used in press part can also
be reused on felt roll and in drying section.

With varieties in usage ,the demand for resin blade is being enlarged

with the development of paper machine,the material of doctor blade is innovating and developing.The demand for resin blade is increasing year by year especially with the improvement of the speed of paper machine .Thus we have been developing and researching new materials according to the customers' requirement.

Epo-glass

Epo-glass fiber blade



Resin blade used in most Factories

Main Use

Suit for all rolls from wire section to paper-reel section

Featrues

The formal name is epoxy resin Soaked glass fiber.It can effectively Prevent damage to hard rubber roll and avoid fire in drying section.

Polyethylene

Polyethylene



Suit for soft rubber rolls

Main Use

Used for soft rubber rolls in wet section and polyester rubber rolls.

Featrues

Super-dense resin ethylene increases wear-resistance of the blade .Suit for various hard rubber rolls and soft rubber rolls,It' s better used in wet section.

X-2

X-2



Laminated blade with reduced glass fiber content

Main Use

Suit for various ceramic spraying rolls, rolls in drying section and hard rubber rolls

Featrues

The content of glass fiber is reduced and epoxy resin is added to prevent glass fiber from damaging the roll , Low water absorption,thus suit for wet section.

Special blade for suction couching

Special blade for suction couching



Special shape as its main feature

Main Use

Used for suction couch roll.

Featrues

The blade is especially developed for suction couch roll ,Its special shape can produce negative pressure at the back of the blade ,so as to minimize block of holes,thus increase water absorption.

P-blade

Pblade



Best for removing coating

Main Use

Used for rolls in coating section and in printing.

Featrues

With good corrosion -resistance, it is the blade with high precision in resin series. Effective to remove the ink and coating solution on roll surface and not liable to damage the rolls.

Teflon blade

Teflon blade



Softest blade in all resin blades

Main Use

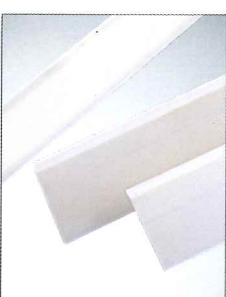
Suit for mirror surface rolls, BC rolls and super calender rolls.

Featrues

Teflon sheet fixed on the fore end of epoxy resin blade can prevent the blade from damaging rolls .Good heat -resistance.

MC500E

MC500E



Anti-static blade

Main Use

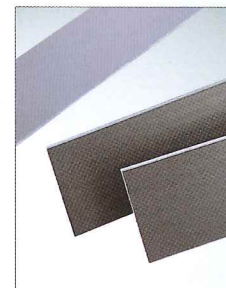
Used for calender rolls ,plated rolls and rolls designated for use in explosive classified areas.

Featrues

Anti-static

Carbon 20

Carbon 20



Most popular carbon fiber series blade

Main Use

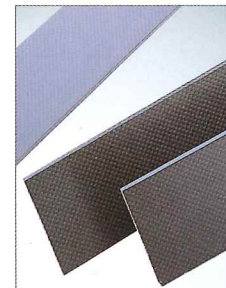
Suit for various ceramic spraying rolls, rolls in drying section and hard rubber rolls.

Featrues

Made of 29% carbon fiber and 71% glass fiber, good lubricity and heat-resistance(up to 250℃).

Carbon 50

Carbon 50



Suit for ceramic thermal spraying roll

Main Use

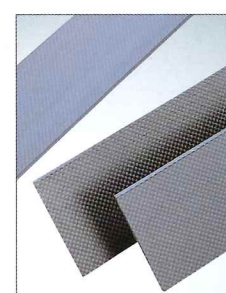
Suit for thermal spraying rolls ,plated rolls in drying section, and soft calender roll.

Featrues

Made of 57% carbon fiber and 43% glass fiber ,good lubricity , and best for thermal spraying rolls.

Carbon 100

Carbon 100



Highest -class carbon fiber blade

Main Use

Suit for ceramic spraying rolls, WC thermal spraying rolls and soft calender rolls.

Featrues

Made of 100% carbon fiber , with highest lubricity in resin blades.

N-carbon

N-Carbon



Carbon blade used in drying section

Main Use

Suit for various ceramic spraying rolls, cold steel rolls and plated rolls.

Featrues

Made of 40%Carbon fiber ,low price,mainly used in dryer part.

T-carbon

T-carbon



Carbon blade with low cost and high heat-resistance

Main Use

Suit for various ceramic spraying rolls, rolls in drying section and hard rubber rolls

Featrues

Low cost ,good doctoring effect, and long service life.

Poly-carbon

Poly-carbon



Resin ethylene blade with high wear-resistance

Main Use

For rubber rolls in wet section, and polyester rubber rolls.

Featrues

Resin ethylene mixed with carbon fiber particals increases heat-resistance and wear-resistance of the blade; especially effective to the polyester rubber rolls with higher surface friction resistance on roll surface.

Cleaning blade

Cleaning blade



Resin blade whose property is almost the same as the metal's

Main Use

Used for dirtier rolls in drying section and calender

Featrues

Though it' s resin blade ,it can effectively remove dirt in drying section to produce gloss on roll surface.

Super fine blade

Super Fine Blade



Carbon grains are added into the blade to increase the gloss on the roll surface .

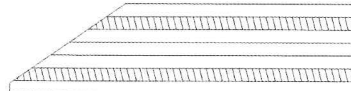

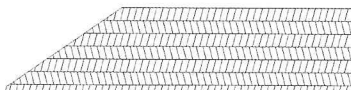



Main Use

Suit for rolls in drying section and cold steel rolls.

Featrues

Carbon grains are added to increase the gloss of roll surface.

CARBON BLADE

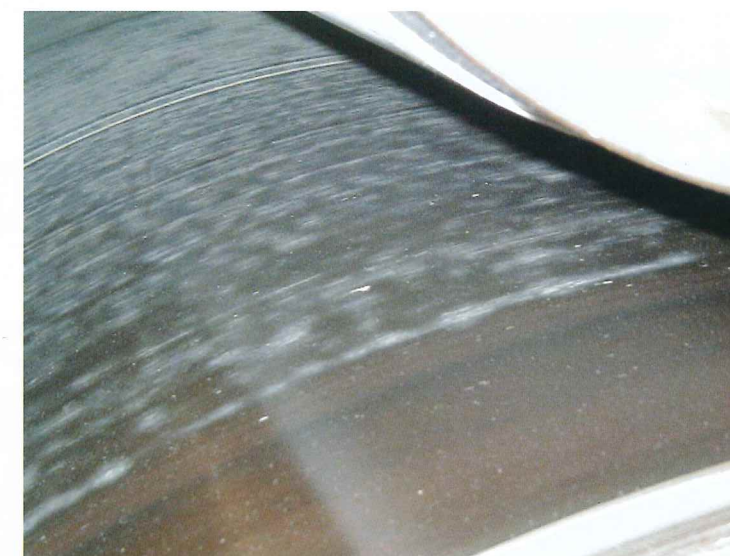
Category	Features	
Carbon20	Carbon fiber 29%,glass fiber 71% Most widely -used and wear-resistant blade,which can be used in every part of paper machine.	(例) 
Carbon 50	Carbon fiber57%,glass fiber 43% Good wear -resistance,not liable to damage the roll and long service life. Mainly used in ceramic roll.	(例) 
Carbon100	Carbon fiber 100%,good wear-resistance, not liable to damage the roll and long service life .Best quality in carbon fibers.	(例) 
N-Carbon	Carbon fiber 40%, low price .Mainly used in dryer part and long service life.	(例) 
T-carbon	It' s a kind of doctor blade for low cost. Have good doctoring effect and long service life.	(例) 
Polycarbon	Polyethylene carbon fiber 0.5%, the property of heat-resistance and wear-resistance has been improved . Use under high temp erature.	(例) 

SUPER FINE

Recently with the reuse of waste paper ,low quality of pulp raw Material and increaing quantity of additives,the contamination of drying rolls is becoming serious .The effect of using metal blade is good ,but it will easily catch fire .And using resin blades can not get good performance.To solve above problems, we' ve developed super fine blade.Super blade is made of resin and special additives. It can easily remove dirt sticking on the drying cylinders.Meanwhile, it can restrain new dirt from emerging.

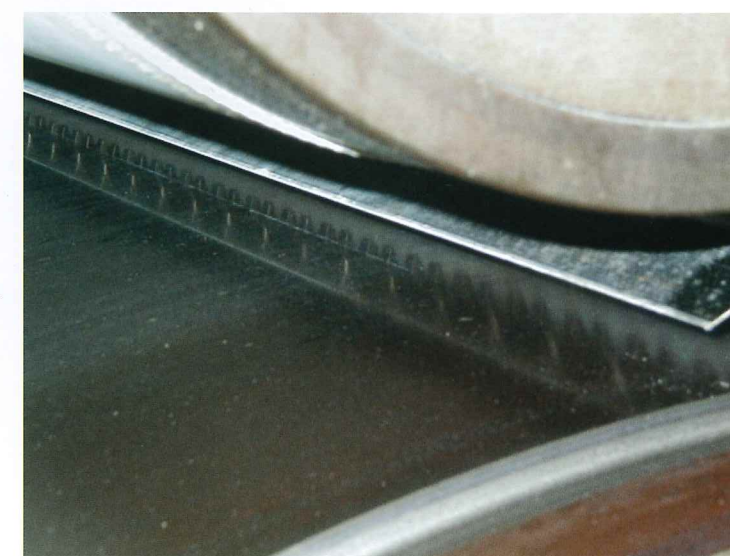
Before Using

Much paper powder and dirt on the roll surface.



After Using

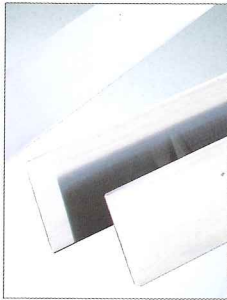
Two months later, a film is formed on the roll.



(Speed 1200m/min operate with ABC air nip inbetween 150-200N/m)

Stainless steel blade

Stainless Steel



Stainless steel blade that is used on granite roll

Main Use

Mainly used on granite roll and hard rubber roll in press part.

Featrues

High hardness,good doctoring Effect and anti-corrosion.

SK-5 steel blade

SK-5



Metal blade that is used most widely

Main Use

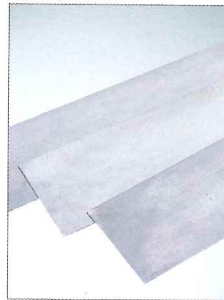
Mainly used in low-speed drying section and yankee craping doctors.

Featrues

High strength in high carbon steels, good wear-resistance and spring effect.

UH230S blade

UH230S



Metal blade that resist 1200°C high temperature

Main Use

Used on rolls in high-temperature furnace on steel -making line and high-temperature rolls for paper -making.

Super blade

Super Blade



High strength,wear-resisting doctor blade

Main Use

Mainly used in low-speed drying section and yankee craping doctors.

Featrues

The SK-5 surface is treated to raise its wear-resistance. This is the innovative high carbon steel of our company.

Swedish steel blade

S Blade



Good for removing surplus liquid

Main Use

To remove surplus liquid from coating rolls and coating press rolls, and to remove ink from printing rolls

Featrues

Made from sweden steel ,the blade has high precision.

K-500 blade

K-500



Doctor blade that avoid black stream on WC thermal spraying rolls

Main Use

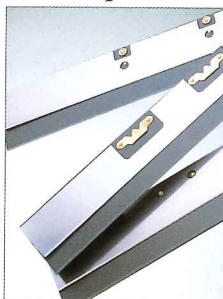
Used on stone rolls in press section, WC thermal rolls and plating rolls.

Featrues

Effectively prevent rolls being scratched with darklines, widely used in steel -making lines where thermal spraying rolls and plating rolls.

Back up plate

Back up Plate

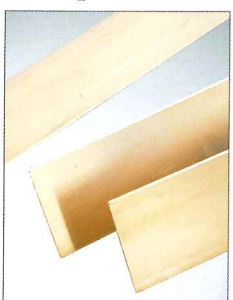


Putting it on the blade to support the blade and to avoid the bent of it .



Phosphor bronze blade

Phosphor Bronze



Safe and widely-used blade

Main Use

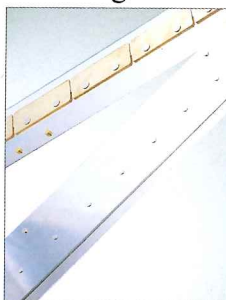
Mainly used in drying section, yankee rolls and cold steel rolls.

Featrues

Softest in all metal blades, good effect of removing dirt, not liable to damage rolls.

Cartridge holder

Cartridge Holder



When thin blade is used, blade is put into the cartridge holder to avoid blade distortion.

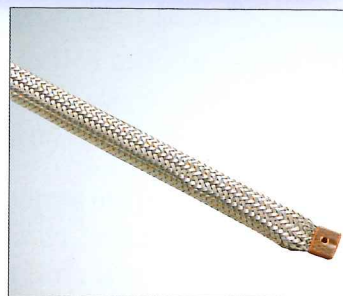


discontinued

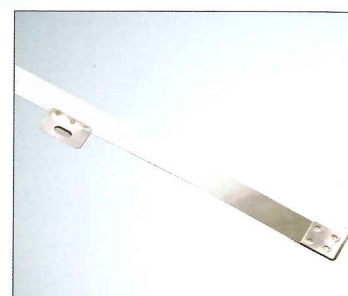
PARTS GUIDE



Teflon Tube for CM



Tube for CM-H



Buffer Strip for CM



Apron Sheet for Water Doctor



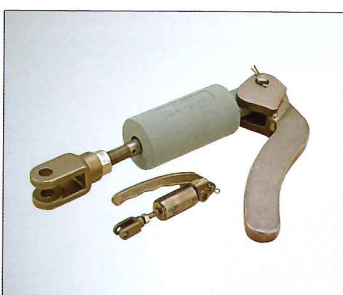
Air Spring



Spherical Bearing



Lod End



Pressure



Hung unit for Oscillation



Operation Panel(SS-BOX)



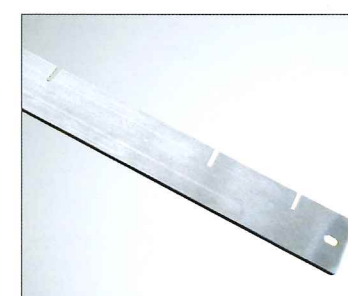
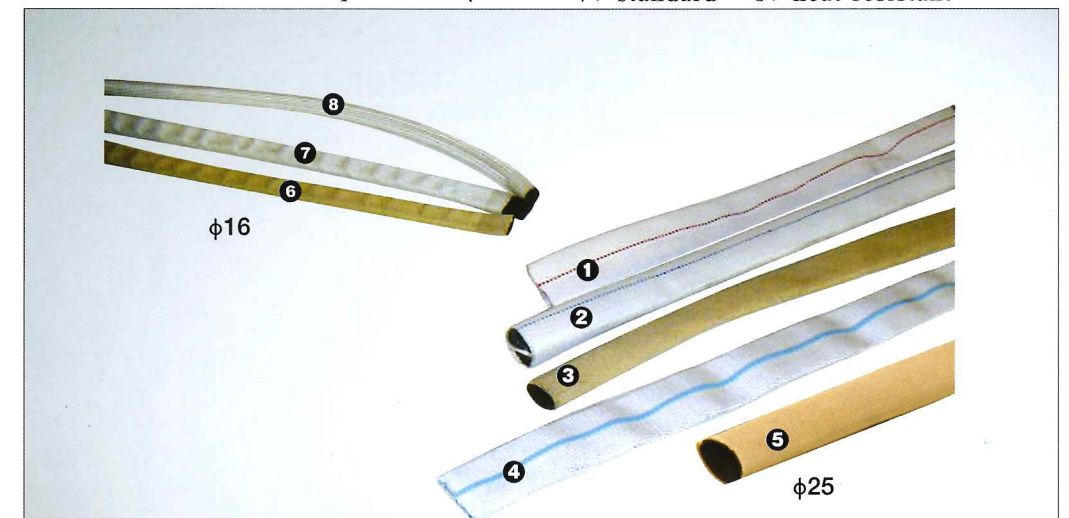
Operation Control Panel



Dust Arrester

Air Tubes

- 1, standard 2, heat-resistant 3, super heat-resistant
4, For Backing Roll 5, super heat-resistant
6, super heat-resistant 7, standard 8, heat-resistant



Locker Blade for CM-H



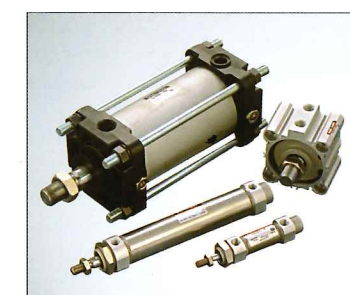
Journals



Bearing



Jugal



Air Cylinders



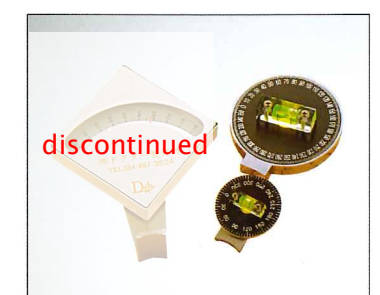
Motor for Oscillation



Fine Adjusting Screws for KF and CM



Shower Nozzle



Gauges

DOCTOR NETWORK

SUZHOU SHIZUOKA DOCTOR MANUFACTURING CO.,LTD.

蘇州静岡刀具有限公司 [中国]
XINGYE ROAD(S) TAICANG CITY JIANGSU CHINA 215400
TEL.0512-5356-9377 FAX.0512-5356-9376
E-mail.hzh@shizuoka.com.cn

~~Mitsui&Co. UK PLC [イギリス]
20 Old Bailey London, EC4M 7QJ, United Kingdom
TEL.44-20-7822-0451 FAX.44-20-7332-4146
E-mail.YNomura@ldn.xm.mitsui.co.jp~~

韓國紙技工社 [韓国・東南アジア]
서울특별시 강남구 신사동 570-2 光林B/D 401號
TEL.82-02-514-5658-9 FAX.82-02-514-4260
letter@kpaper.co.kr

Mitsui&Co.(Taiwan), Ltd. Kaohsiung Office [台湾]

14th Fl.,B Room,Cathay Life Chung Cheng Bldg.
No2,Chung Cheng 3 Road, Kaohsiung,Taiwan
TEL.886-7-236-1051 FAX.886-7-236-0238
E-mail.jkuang@kao.xm.mitsui.co.jp

SUNCOSMO CO,LTD [インドネシア]

JL. CEYLON NO.11 (PECENONGAN)
JAKARTA 10120 INDONESIA (P.O.BOX 3610)
TEL.62-21-3811853-3808989-3812132 FAX.62-21-3846153
E-mail.suncosmo@cbn.nea.id

関東エリア代理店

株式会社英光
〒215-0004 神奈川県川崎市麻生区万福寺1-1-1
TEL.044-966-0811 FAX.044-966-1577
E-mail. eiko@eiko-kk.co.jp

株式会社テクノシーク

〒155-0052 東京都世田谷区経堂4-16-17-102
TEL.03-5450-3307 FAX.03-5450-3308
E-mail. y55@kamakuranet.ne.jp

東京営業所

〒215-0004 神奈川県川崎市麻生区万福寺1-1-1
TEL.044-951-3693 FAX.044-966-1577
E-mail. tokyo@doctor-ss.co.jp

富士営業所

〒416-0006 静岡県富士市伝法573-2 ビルズ中原2F
TEL.0545-23-1500 FAX.0545-23-1522
E-mail. fuji@doctor-ss.co.jp

芝川テクノサポート

〒419-0316 静岡県富士郡芝川町羽魚鮒1213-20
TEL.0544-65-0728 FAX.0544-65-0573
E-mail. stswatanabe@po2.across.or.jp

大阪営業所

〒599-0007 大阪市住之江区粉浜西1-1-16
パールスクエア407
TEL.06-4701-7887 FAX.06-4701-7888
E-mail. asahicorp@titan.ocn.ne.jp

中国エリア代理店 明治商事株式会社

〒723-0051 広島県三原市宮浦6-11-5
TEL.0848-63-4700 FAX.0848-63-5516
E-mail. meiji.mh@cronos.ocn.ne.jp

四国営業所

〒799-0101 愛媛県四国中央市川之江町2661-2
TEL.0896-59-2523 FAX.0896-59-2524
E-mail. shikoku@doctor-ss.co.jp

九州営業所

〒841-0036 佐賀県鳥栖市秋葉町3-8-1
東峰マンション鳥栖504
TEL.0942-81-5074 FAX.0942-81-5076
E-mail. kyushu@doctor-ss.co.jp

北海道エリア代理店

株式会社ヨネイ/札幌支店
〒060-0042 札幌市中央区南一条西12-4
あいおい損保札幌ビル
TEL.011-272-2045 FAX.011-272-2546
E-mail. kubata@yonei.co.jp

仙台営業所

〒981-1224 宮城県名取市増田4-5-25
アネックス21 203号
TEL.022-381-4630 FAX.022-381-4631
E-mail. sendai@doctor-ss.co.jp

サンコスモ株式会社

〒101-0061 東京都千代田区三崎町2-4-1 TUG-ONEビル6階A
TEL.03-3221-0291 FAX.03-3221-0296
E-mail. tokyo@suncosmo.co.jp

輸出代理店

三井物産株式会社中部支社
〒450-0003 名古屋市中村区名駅南1-16-21
名古屋中央郵便局私書箱117号
TEL.052-584-2111 FAX.052-584-2168

名古屋営業所

〒486-0904 愛知県春日井市宮町1-12-3
サンピット春日井ビル511号
TEL.0568-33-8128 FAX.0568-33-8129
E-mail. nagoyakasugaimiyamachi@doctor-ss.co.jp

代理店

株式会社ヨネイ/名古屋支店
〒450-0002 愛知県名古屋市中村区名駅4-8-12 (菱ビル)
TEL.052-582-2905 FAX.052-582-2907



〒421-1121
静岡県志太郡岡部町岡部996-6
TEL.054-667-3578 FAX.054-667-3489
E-mail. sekkei@doctor-ss.co.jp
E-mail. gyoumu@doctor-ss.co.jp



〒421-1131
静岡県志太郡岡部町内谷780-1



〒421-1131
静岡県志太郡岡部町内谷760-1



〒421-1121
静岡県志太郡岡部町岡部1058



〒421-1121
静岡県志太郡岡部町岡部1190-3

Workshop Equipment

Business & Design Department

All information is administered by computer



In design department ,technology about doctor has been accumulated for many years .Doing designing and darwing by CAD .And all data is Managed by computer.

Precision Casting Department

24-hours fully automatic production



By utilizing precision casting system , the efficiency of producing doctor parts like finger has been improved largely.

Assembling Department

Department that manages all production and project



To satisfy customer' s need ,the aim of high quality and short delivery time has been achieved.

Blade Department

Epochal factory that introduces fully automatic production line.



The size of blade is just need to be set into the computer ,all procedures from the cutting of blade to the packing are controlled by the computer ,which saves labor force.

Welding Department

Realizing promp and highly precised welding



By using automatic welding line designed by ourselves, high quality has been ensured and working time has been shortened.

Welding Department(500t press)



Manufacturing Department

High quality and low cost competitive



Manufacturing automatically, thus achieving low cost .

Manufacturing Department(Planer)



For reconstruction of doctor back,5 planers have been introduced,and manufacturing precision can be ensured.

Manufacturing Department(Removing boring machine)



By using boring machine, large products like Frames and rolls can be manufactured.