

OTHER INDUSTRIES WE SERVE



Mineral Processing

Coal

Cement

Power

Steel

POLYSHIELD

Wear Resistant Composites

a proven alternative to hardfacing

It's true!

*Better cane
preparation
leads to
higher
milling
efficiency*



CA POLYTECH PVT. LTD.

(An ISO 9001 : 2008 Certified Company)

Works :

D-27, Site IV, Industrial Area, Sahibabad
Ghaziabad - 201010 (U.P.), India Ph.: +91 120 4166926 / 927
Fax: +91 120 4166928, e-mail: info@capolytech.com

Regd. Office:

4671-73, Ansari Road, 21 Darya Ganj, New Delhi - 110002, India
Ph.: +91 11 2325 9785, Fax: +91 11 2327 8554
e-mail : tarun@capolytech.com

Website: www.capolytech.com

Your nearest contact



CA POLYTECH PVT. LTD.

(An ISO 9001 : 2008 Certified Company)

www.capolytech.com

CA POLYTECH PVT LTD.

Established in 1990, accredited with ISO 9001:2008 Quality Management System, is a family owned company headed by Mr. Tarun Gupta an industrial engineer graduated in 1988. It specializes in the manufacture of wear and impact resistant bimetallic composite products widely used in Sugar, Mining, Mineral Processing and Cement Industries marketed under the trade name POLYSHIELD. Polyshield products are manufactured at it's state of the art manufacturing facilities spread over 20,000 sqft. area. With vast industry experience,dedicated team of professionals & technocrats, competent & qualified workforce having unstinted commitment towards highest standards in quality, reliability & services, we have constantly been exceeding our customer expectations coupled with a competitive pricing & prompt deliveries. This has made POLYSHIELD products well accepted in the domestic & international markets.

POLYSHIELD®

An innovative wear resistant composite material designed to increase the service life of your Fibrizer /Shredder hammers and cane cutter/leveller knives by providing wear resistance to severe abrasion and high impact during milling. Polyshield Tips can be welded or bolted to all fixed or Swing Type Fibrizer Hammers to get increased efficiency and life. Polyshield hammer tips & knife edges are well accepted in the Indian Sugar Industry and are widely used by all the renowned OME's Polyshield products are also being exported to various cane sugar producing countries.

Technical Specifications

POLYSHIELD is a laminated bimetallic composite of high chrome white iron, modified abrasion resistant alloy metallurgically bonded through Vacuum brazing to a mild steel back plate resulting a high strength joint having bond strength of min 250 Mpa and hardness 700 BHN having priprimary carbides upto 1500 HV

*Value for Money,
Commitment to
produce &
maintain the
highest quality
standards
alongwith prompt
after sales services
at the most
competitive price
with minimum lead
time to ensure total
customer satisfaction.*



Product Range

- DETACHABLE HAMMER TIPS FOR CANE SHREDDER/UNIGRATOR
- REPLACEABLE KNIFE TIPS FOR CANE CUTTER KNIVES
- SHREDDER HAMMERS FITTED WITH POLYSHIELD TIPS OR HARFACED
- CANE CUTTING KNIVES FITTED WITH POLYSHIELD TIPS OR HARFACED / STELLITED.
- HARVESTER KNIVES
- ANVIL BARS
- WEAR PLATE & LINERS

POLYSHIELD Advantages

- Cost effective and provides longer service life
- Improves preparatory index
- Minimize unwanted stoppage/down time
- Superior Cutting Edge & Cutting Efficiency.
- Eliminates rebuilding of Edges /hardfacing
- Proven and well accepted by renowned OEM's & Sugar Industry globally

Business Policy

Quality Policy

We are committed to consistently deliver enhanced value to our customers, through continual improvement of our processes and systems by way of innovation, technology and knowledge management.



SHREDDER HAMMER TIPS

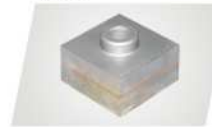
POLYSHIELD Detachable Hammer Tips

The highly wear resistant POLYSHIELD Detachable Hammer & Knife Tips are known for excellent impact & abrasion resistance properties & enhanced service life. These are bolted to the Hammer Shank using high tensile bolt and can be rotated by 180° after one edge is worn out. Polyshield range of hammer tips is available in various standard & custom-built sizes/shapes. some of the most commonly used sizes are 90X90 mm, 80X80 mm, 100X100 mm, 80X56 mm and 90X50mm. The use of Polyshield tips result in higher preparatory index thus excellent extraction & increased plant throughput with reduction in pol % bagasse.



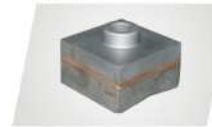
Variants

Type : 1



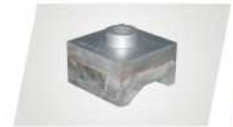
Product PS-2991
Codes: ('F', Flat or Plain)

Type : 2

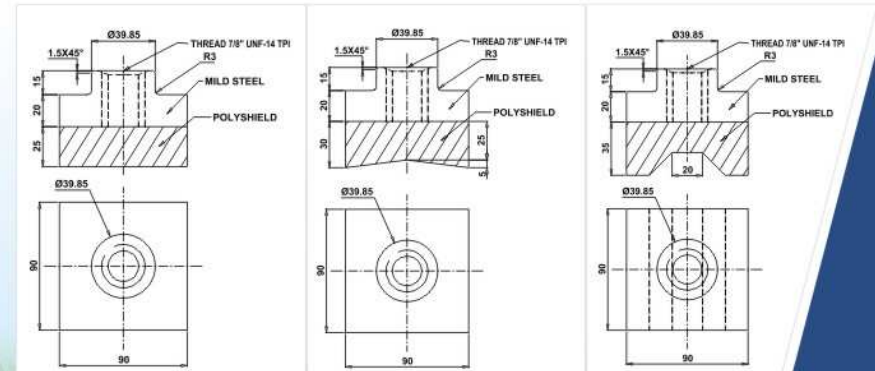


Product PS-2992
Codes: ('V' or 'M')

Type : 3



Product PS-2993
Codes: ('U', Butterfly /Flaired)

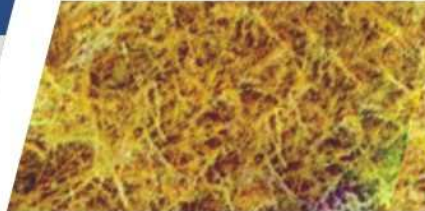


Easy to fix BOLTED USING HIGH TENSILE HEX BOLT(Gr. 10.9) & WASHER

Torque Required for bolting

Fixed type hammer 350 N-mtr

Swing type hammer 550 N-mtr



HAMMERS

Fixed Type Hammers

Fixed Type Hammers manufactured by us are fabricated using tested Mild Steel, precisely machined to the customer's drawing and hardfaced at wear prone areas. The Crushing head of the hammer is either fitted with the POLYSHIELD detachable Tip (63 HRC) or is hardfaced with high grade abrasion resistant Chromium Carbide electrode having 55-58 HRC hardness. These Hammers are fitted to the Fibrizer / Unigrator / Mincer & are used for cane preparation.



Swing Type Hammers

We manufacture a wide range of Swing type hammers suitable for heavy duty shredding equipments viz. Shredder / Unigrator / Mincer / Fibrizer suitable for Walkers, Tongaat, Fives Cail, F & S, Krupp, Unice etc. for effective cane preparation. Use of quality & tested raw-materials, special hardfacing alloys, excellent workmanship has made our make hammers widely acceptable in the domestic & overseas markets. The crushing head of the hammer is either fitted with POLYSHIELD Detachable Tip or is heavily hardfaced with Chromium Carbide Electrode.

We manufacture these Hammers out of -

- Mild Steel Plates
- Cast Steel
- Forged Steel



Hardfaced Hammers

Prior to introduction & use of detachable tipped hammers, sugar mills have been using hardfaced hammers where the cutting edge is built up with chromium carbide electrodes. Here the worn out hammers are replaced with the standby set of hammers & the worn out ones are rebuilt. This process involves longer downtime, higher labour cost, expensive hardfacing besides low performance & increased power requirement due to round edges. These limitations made the sugar mills to happily switch over to the Tipped Hammers. However there are still few mills who continue to use hardfaced hammers satisfactorily.

CANE KNIFE EDGES

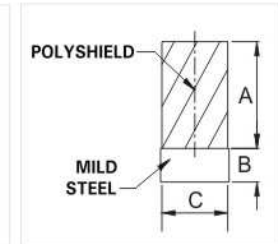
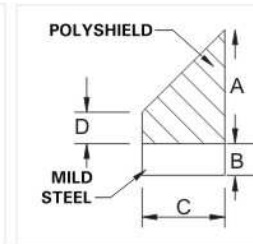
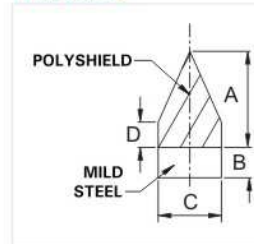


Before the advent of the Shredder, cane knives were the only means of preparation & hardfaced knives were used for primary/secondary & main knifing of the sugar cane.

POLYSHIELD Knives Edges have now mostly replaced the conventional hardfaced knives due to their versatility. The abrasion & impact resistant properties of Polyshield knife edges provides

- Much Longer service life
- Uniform preparation
- Eliminates rebuilding / hardfacing
- Requires replacement of only the Polyshield knife edge when worn out

Variants



Product Codes PS-50825 (Centre Edge type)

PS-50825R (Right Angled type)

PS-60825 (Blunt type)

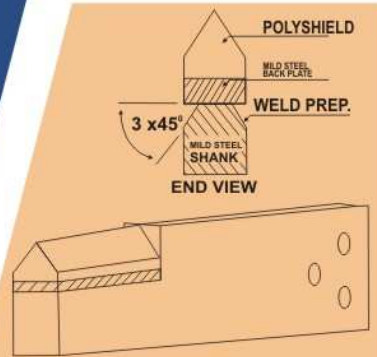
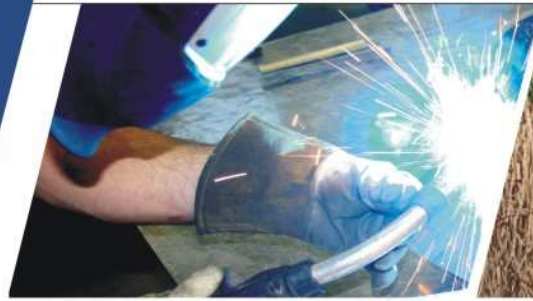


Part No.	A	B	C	D	E
PS-50625	38	12	25	10	151
PS-50825	38	12	25	10	204
PS-51225	38	12	25	10	305
PS-50625R	45	12	25	10	151
PS-50825R	45	12	25	10	204
PS-60625	38	12	25	-	151
PS-60825	38	12	25	-	204

All dimensions are in mm

Easy to fix RECOMMENDED WELDING PROCEDURE

1. Ensure surface that POLYSHIELD is to be attached to is as flat as possible and the area to be welded is clean.
2. Prepare blade edge by hand grinding a bevel as shown below.
3. Clamp and tack weld POLYSHIELD in to position.
4. Stitchweld laying 1" Max. Length on each run, alternatign sides, to minimise heat input
5. If a complete peripheral weld is required. Stitch weld method as per note 4.
6. DO NOT WELD CONTINUOUSLY eliminatng the possibility of warpage, delamination and cracks.
7. Ensure welding does not come closer than 2 mm from joint line between POLYSHIELD and its backing plate.
8. Its is recommended to stitch weld in batches to prevent too much heat input.



Use low hydrogen electrode
E7018-3.15 mm dia for welding

Weldless Cane Knives

POLYTECH-WL Cane Cutter Knives do not require hardfacing or tip welding & hence the name Weldless. These are made from specially alloyed cast steel having work hardening properties capable of withstanding the harsh cutting/chopping applications.



Harvester Knives

We manufacture high quality knives & blades for various make of mechanical sugar cane harvesters. These are hardfaced or through hardened made from specially selected alloy steels depending upon the cane / soil conditions. The Product range includes Base Blade, Chopper Knives, Extractor Blades etc.



CANE CUTTER KNIVES

Cane Cutting Knives with Replaceable Tips

We manufacture cane cutting knives with replaceable POLYSHIELD tips, which have outperformed hardfaced knives due to their longer crushing life. Our range of cutting knives for Cane Cutter, Chopper, Leveller, kicker spreads over a large variety of designs/sizes with shank thickness varying from 16mm to 32mm. The detachable Polyshield tips are provided on one side or both sides of the shank to provide longer service & superior cane preparation.

With One Side
POLYSHIELD Tip



With Both Side
POLYSHIELD Tip



Hardfaced Knives For Cane Cutting

POLYTECH make self sharpening hardfaced knives are made out of special alloy steel, cut & precisely machined to the customer specific drawing/ design. and stellite or hardfaced to achieve sharp wear resistant cutting edge. Further heat treated to enhance their working properties, these are fitted to Cane Cutter, Leveller, Chopper & Kicker for chopping the large stalk of sugar cane into small pieces before the shredder.



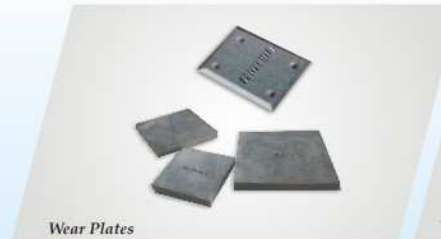
POLYSHIELD PROTECTION AGAINST WEAR FROM ABRASION & IMPACT



Choco Bars



Wear Buttons



Wear Plates



Wear Bars